



# THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (e.g. PhD, MPhil, DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

# Improving health care access for low-income patients in a mixed insurance market:

Investigating the impact of the U.S.'s Affordable Care  
Act on Federally Qualified Health Centers

By: Angelo A. Ercia  
PhD in International Public Health Policy  
The University of Edinburgh  
2019

# **Declaration of Originality:**

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

# Abstract

**Background:** The Affordable Care Act (ACA) aimed to enhance access to health care in the United States, particularly for those without comprehensive insurance. This thesis examines the impacts of the ACA on equity of access by investigating its effect on Federally Qualified Health Centers (FQHCs). FQHCs provide essential primary care to low-income people. Their experiences of providing primary care during the period of the ACA's implementation can provide valuable information about the challenges of addressing inequities of access in the context of a dual insurance market.

**Aim:** To examine the ACA's impact on the ability of FQHCs in Arizona, California, and Texas to provide essential primary care to people with limited health care access.

**Methods:** Using a case study approach, the thesis draws on two data sources to contextualize and explore how the ACA was perceived to impact on FQHCs in Arizona, California, and Texas, and how senior FQHC staff responded to these impacts. Data from Uniform Data System (UDS) were analyzed to ascertain trends in overall population insurance coverage and in FQHCs' patient coverage, provided services, and funding sources in Arizona, California, and Texas from 2008 to 2015. The main body of the research focused on administrators' experiences of the ACA's impact on FQHCs and their ability to meet the needs of their patients. This was explored via 23 interviews with executive directors and mid-level managers from 10 FQHCs in the three states, which took place between July and September 2015.

**Results: Impact on FQHCs:** FQHCs in Arizona and California experienced an increase in the proportion of their patients covered by Medicaid following implementation of the ACA. Interviews confirmed that Medicaid expansion in

Arizona and California enabled many uninsured patients to obtain coverage and access to care, with FQHCs experiencing increases in demand and revenue. In contrast, FQHC administrators in Texas believed the ACA had minimal impact on both patient coverage and revenues, as the state had not expanded Medicaid. FQHCs in Texas experienced a minimal increase in the proportion of patients with insurance coverage, with most newly insured patients gaining coverage via the private market. UDS data from 2008-2015 showed that FQHCs in all three states experienced an increase in real income from federal grants under the ACA. **Response of FQHCs:** The majority of key informants in Arizona and California stated the ACA had enhanced their ability to serve their patients, primarily due to increased revenue from Medicaid which enabled FQHCs to increase their capacity and better respond to the needs of their patients. In contrast, there was no consensus among administrators in Texas regarding the impact of the ACA on their ability to serve their patients. The absence of Medicaid expansion and weaknesses of private insurance meant patients in Texas faced particular difficulty in accessing care due to high deductibles, the limited depth of coverage and a small pool of willing providers.

**Discussion and conclusions:** The experience of FQHC administrators provides a valuable lens through which to evaluate the effectiveness of the ACA in terms of one of its core objectives: addressing inequities of health care coverage and access in the U.S. After the legislation took effect, FQHCs in Arizona and California experienced considerable improvements in their ability to meet patient needs, especially due to the expansion of Medicaid in these states. In contrast, FQHCs in Texas did not experience a notable improvement in their ability to serve their patients. The FQHCs in all three states continued to face challenges in securing their patients' access to specialist health services.

The findings of this thesis highlight the scale of challenge faced by policymakers that seek to expand health care access within a context of mixed public/private insurance. While the ACA aimed to improve health care access by expanding

coverage, its ability to do so was compromised by: i) regulatory barriers to the expansion of public health insurance (a legal challenge and Supreme Court ruling meant half of all US states opted out of Medicaid expansion); ii) limitations in coverage and access associated with private health insurance; and iii) reluctance on the part of some healthcare providers to accept patients with public or more limited private insurance.

# Acknowledgement

*"I alone cannot change the world, but I can cast a stone across the waters to create many ripples"*

~ Mother Theresa

I would like to extend my sincere gratitude to my supervisors Dr. Mark Hellowell and Dr. Sarah Hill. The extraordinary support, guidance, intellectual knowledge, and care you have shown me over the years have been a guiding light for my journey. You both helped make my vision for this inquiry a reality and have been a key component in strengthening my confidence as a researcher. I would also like to thank Dr. Ellen Stewart for allowing me to be part of her research projects, which has further contributed to increasing my knowledge in health care research and improved my research skills. You have also been a source of inspiration and support that helped me get through this process.

This thesis would not have been possible without the support of the hard working administrators of Federally Qualified Health Centers that were willing to take part in this study. I am extremely grateful for their willingness to take time and share their valuable insights.

I am also extremely grateful for some of the most amazing people I have formed friendships and in turn have become my family in Edinburgh. Thank you Bethany Jennings, Dudzai "Bonnie" Mureyi, Gary Mooney, Nicholas Whey Leon Yeap, Dr. Demetria Theodorou, Dr. Maevis Tan, and Dr. Nichole Fernández for being here for me from the start and have always been a source of love, encouragement, and a shoulder to lean on. A special thank you to Dominique Green – the person I can always count on to brighten up my days when times were tough and strengthened me with large doses of the best medicine: laughter. Thank you, Adam Thornley for your boundless support and the faith you had in my ability to complete this thesis. You've witnessed me in my "good"

and “not-so-good” moments throughout this process and have always been there for me. No amount of words can describe my deep appreciation for you. I also would like to extend my appreciation to my friends in the U.S. – Sarah Gonzales, Harsha Gunatilaka, Tahmara Scott Camp, and Mimi Lim Zimlich. Though we were thousands of miles apart, you all reminded me that, “I can do this”.

Most importantly, I would like to thank my mother, Yolanda Amparo Ercia, and brother, Arron Ercia for supporting me to pursue this dream of mine half way across the world. Mom – you have always been the “wind beneath my wings” and have always encourage me to go after my dreams. Thank you for all the sacrifices you made that enabled me to have this privilege and opportunity to pursue and complete this journey.



# Table of Contents

<b>DECLARATION OF ORIGINALITY:</b>	<b>1</b>
<b>ABSTRACT</b>	<b>2</b>
<b>ACKNOWLEDGEMENT</b>	<b>5</b>
<b>TABLE OF CONTENTS</b>	<b>7</b>
<b>ACRONYMS AND ABBREVIATIONS</b>	<b>13</b>
<b>CHAPTER 1: INTRODUCTION</b>	<b>15</b>
1.1 PROLOGUE	15
1.2 HEALTH INSURANCE SYSTEM IN THE U.S.	16
1.3 THE U.S. SAFETY NET SYSTEM AND FEDERALLY QUALIFIED HEALTH CENTERS (FQHCs)	17
1.3.1 LOCATION AND PATIENT DEMOGRAPHICS OF FQHCs	19
1.3.2 FINANCING OF FQHCs	20
1.3.3 FQHCs AND THE AFFORDABLE CARE ACT (ACA)	21
1.4 AIMS AND OBJECTIVES	24
1.5 THESIS OVERVIEW	25
<b>CHAPTER 2: LITERATURE REVIEW</b>	<b>27</b>
2.1 INTRODUCTION	27
2.2 HEALTH SYSTEM GOALS, OBJECTIVES AND UNIVERSAL HEALTH COVERAGE	28
2.3 THE ROLE OF FINANCE IN ACHIEVING UNIVERSAL HEALTH COVERAGE	32
2.4 EMPIRICAL LITERATURE ON THE U.S. EFFORT TO EXPAND HEALTHCARE ACCESS	37
2.4.1 HEALTH CARE REFORMS AT THE FEDERAL LEVEL	37
2.4.2 HEALTH CARE REFORMS AT STATE LEVEL: THE EXPERIENCE OF MASSACHUSETTS	42
2.5 THEORETICAL LITERATURE ON POLICY IMPLEMENTATION	46
2.6 REVIEW OF THE AFFORDABLE CARE ACT (ACA)	50
2.7 ANTICIPATED IMPACT OF THE ACA ON COVERAGE EXPANSION IN THE U.S.	55
2.7.1 ANTICIPATED IMPACT OF THE ACA ON FQHCs' PATIENT COVERAGE AND DEMAND	58
2.7.2 ANTICIPATED IMPACT OF THE ACA ON FQHCs' REVENUE AND CAPACITY	62
2.7.3 ANTICIPATED CHALLENGES AND OPPORTUNITIES WITH EXPANDING CAPACITY	63
2.8 ACTUAL IMPACT OF THE ACA ON COVERAGE EXPANSION IN THE U.S.	65
2.8.1 ACTUAL IMPACT OF COVERAGE EXPANSION ON MEDICAID EXPANDED AND NON-EXPANDED STATES RESULTING FROM IMPLEMENTATION OF THE ACA	67
2.8.2 ACTUAL IMPACT OF THE ACA ON FQHCs' PATIENT COVERAGE AND DEMAND	69
2.8.3 ACTUAL IMPACT OF THE ACA ON FQHCs' REVENUE AND CAPACITY	71
2.8.4 ACTUAL CHALLENGES EXPERIENCED BY FQHCs WITH EXPANDING CAPACITY	73
2.9 LOGIC MODELS AND JUSTIFYING ITS USEFULNESS	74
2.9.1 MECHANISMS OF THE ACA AND ANTICIPATED IMPACT ON FQHCs LOGIC MODEL	75

2.9.2 MECHANISMS OF THE ACA AND THE IMPACT ON FQHC RESULTING FROM IMPLEMENTATION LOGIC MODEL	78
<b>2.10 CONCLUDING SUMMARY</b>	<b>81</b>
<b>CHAPTER 3: METHODOLOGY</b>	<b>84</b>
<b>3.1 INTRODUCTION</b>	<b>84</b>
<b>3.2 BACKGROUND TO THE PhD</b>	<b>85</b>
3.2.1 EPISTEMOLOGICAL STANCE	86
<b>3.3 DESIGN AND THE JUSTIFICATION OF THE MULTIPLE CASE STUDY APPROACH</b>	<b>88</b>
3.3.1 SELECTION OF CASE STUDIES	90
3.3.2 BACKGROUND INFORMATION OF SELECTED FQHCs	93
<b>3.4 JUSTIFICATION OF USING MIXED-METHODS</b>	<b>94</b>
<b>3.5 METHODS AND ANALYSIS</b>	<b>95</b>
3.5.1 UNIFORM DATA SYSTEMS (UDS): UNDERSTANDING TRENDS IN PATIENT COVERAGE, PROVIDED SERVICES, AND FUNDING SOURCES UNDER THE ACA	96
3.5.1.1 SELECTING THE VARIABLES	97
3.5.1.2 ANALYSIS OF UDS DATA	98
3.5.2 SEMI-STRUCTURED INTERVIEWS: UNDERSTANDING FQHC ADMINISTRATORS' EXPERIENCED UNDER THE ACA	100
3.5.2.1 ETHICS	100
3.5.2.2 SELECTING THE SAMPLE	101
3.5.2.3 THE INTERVIEW PROCESS	106
3.5.2.4 ANALYSIS OF INTERVIEW DATA	108
<b>3.6 CHAPTER SUMMARY</b>	<b>111</b>
<b>CHAPTER 4: RESULTS- IMPACTS OF THE ACA ON CASE STUDY FQHCs</b>	<b>114</b>
<b>4.1 INTRODUCTION</b>	<b>114</b>
<b>4.2 IMPACT OF THE ACA ON FQHCs' PATIENT COVERAGE IN ARIZONA, CALIFORNIA AND TEXAS ACCORDING TO UDS DATA</b>	<b>115</b>
4.2.1 THE ACA'S IMPACT ON PATIENTS' HEALTH INSURANCE COVERAGE ACCORDING TO ADMINISTRATORS	119
<b>4.3 THE IMPACT OF THE ACA ON PATIENT DEMAND FOR CARE FROM FQHCs IN ARIZONA, CALIFORNIA, AND TEXAS ACCORDING TO UDS DATA</b>	<b>125</b>
4.3.1 THE IMPACT OF THE ACA ON PATIENT DEMAND FOR CARE ACCORDING TO ADMINISTRATORS	126
<b>4.4 FQHC REVENUE IN ARIZONA, CALIFORNIA AND TEXAS ACCORDING TO UDS DATA UNDER THE ACA</b>	<b>128</b>
4.4.1 FQHC REVENUE FROM SPECIFIC INSURANCE TYPE UNDER THE ACA	131
4.4.2 FQHC REVENUE FROM FEDERAL GRANTS UNDER THE ACA	132
<b>4.5 COVERAGE EXPANSION IMPACT ON FQHCs' REVENUE IN ARIZONA, CALIFORNIA AND TEXAS ACCORDING TO ADMINISTRATORS</b>	<b>134</b>
4.5.1 FQHCs' REVENUE FROM GRANT FUNDING UNDER THE ACA ACCORDING TO ADMINISTRATORS	136
<b>4.6 CHAPTER SUMMARY</b>	<b>138</b>

<b><u>CHAPTER 5: RESULTS- RESPONSE OF CASE STUDY FQHCs TO CHANGES UNDER THE ACA</u></b>	<b>142</b>
<b>5.1 INTRODUCTION</b>	<b>142</b>
<b>5.2 ADMINISTRATORS PERCEPTION ON THEIR ABILITY TO MEET DEMAND FOR PRIMARY CARE UNDER THE ACA</b>	<b>143</b>
5.3 ADMINISTRATORS PERCEPTION ON THEIR ABILITY TO MEET DEMAND FOR SECONDARY CARE UNDER THE ACA	146
<b>5.4 CAPACITY EXPANSION OF FQHCs UNDER THE ACA ACCORDING TO UDS DATA</b>	<b>148</b>
5.4.1 CAPACITY EXPANSION OF FQHCs UNDER THE ACA ACCORDING TO ADMINISTRATORS	149
5.4.1.1 CAPACITY EXPANSION OF FQHCs IN ARIZONA AND CALIFORNIA	150
5.4.1.2 CAPACITY EXPANSION OF FQHCs IN TEXAS	157
5.4.1.3 A COMMON STRATEGY OF FQHCs IN THE THREE STATES TO EXTEND CAPACITY WITH LIMITED WORKFORCE	159
<b>5.5 CHAPTER SUMMARY</b>	<b>160</b>
<b><u>CHAPTER 6: DISCUSSION</u></b>	<b>163</b>
<b>6.1 INTRODUCTION</b>	<b>163</b>
<b>6.2 SUMMARY OF THE MAIN FINDINGS</b>	<b>165</b>
<b>6.3 THE ACA'S IMPACT ON LOW-INCOME PATIENTS' COVERAGE AND ACCESS TO PRIMARY CARE</b>	<b>167</b>
6.3.1 FQHC PATIENTS' ACCESS TO SECONDARY CARE UNDER THE ACA	171
<b>6.4 THE ACA'S IMPACT ON FQHCs AND IMPLICATION ON PATIENTS' ACCESS TO CARE</b>	<b>172</b>
6.4.1 THE ROLE OF COVERAGE EXPANSION IN STRENGTHENING FQHCs' ABILITY TO SERVE THEIR PATIENTS	173
6.4.2 THE ROLE OF ENHANCED FEDERAL FUNDING IN STRENGTHENING FQHCs' ABILITY TO SERVE THEIR PATIENTS	175
6.4.3 IMPACT OF WORKFORCE SHORTAGE ON FQHCs' GROWTH	177
<b>6.5 BROADER IMPLICATIONS OF THE STUDY</b>	<b>179</b>
6.5.1 EXPANDING COVERAGE IN A MIXED-INSURANCE SYSTEM AND GOVERNMENT REGULATIONS	180
6.5.2 REGULATIONS ON HEALTHCARE PROVIDERS IN A MIXED- INSURANCE SYSTEM	183
6.5.3 THE ROLE OF MULTI-GOVERNANCE AND ITS IMPACT ON POLICY IMPLEMENTATION	185
<b>6.6 LIMITATIONS OF THE STUDY</b>	<b>190</b>
<b>6.7 IMPLICATIONS FOR FUTURE RESEARCH</b>	<b>192</b>
<b><u>CHAPTER 7: CONCLUSION</u></b>	<b>195</b>
<b>7.1 SUMMARY OF THESIS</b>	<b>195</b>
<b>7.2 THE RESEARCH QUESTION AND THE FINDINGS OF THE STUDY</b>	<b>197</b>
<b>7.3 CONTRIBUTION TO THE LITERATURE</b>	<b>200</b>
<b><u>BIBLIOGRAPHY</u></b>	<b>203</b>

---

<b>APPENDICES</b>	<b>229</b>
-------------------	------------

---

<b>APPENDIX I: BACKGROUND INFORMATION OF SELECTED FQHCs IN THE AZ, CA, AND TX</b>	<b>230</b>
<b>APPENDIX II: DESCRIPTION OF VARIABLES SELECTED FROM UDS DATA</b>	<b>239</b>
<b>APPENDIX III: CONVERTING GRANT REVENUES FROM NOMINAL VALUES TO REAL VALUES</b>	<b>241</b>
<b>APPENDIX IV: CONSENT FORM FOR INTERVIEWED PARTICIPANTS</b>	<b>242</b>
<b>APPENDIX V: INFORMATION SHEET FOR INTERVIEWED PARTICIPANTS</b>	<b>243</b>
<b>APPENDIX VI: INTERVIEW SCHEDULE</b>	<b>244</b>
<b>APPENDIX VII: EXPLANATION OF PATIENT COVERAGE CHANGE WITH MEDICAID, PRIVATE INSURANCE, AND UNINSURED UNDER THE ACA</b>	<b>248</b>
<b>APPENDIX VIII: LIST OF SERVICES INCLUDED IN THE OVERALL SERVICES PROVIDED BY FQHCs</b>	<b>250</b>
<b>APPENDIX IX: NUMBER OF TOTAL OVERALL SERVICES PROVIDED BY FQHCs IN THE U.S., AZ, CA, AND TX BETWEEN 2008 AND 2015</b>	<b>251</b>
<b>APPENDIX X: NUMBER OF TOTAL MEDICAL, MENTAL HEALTH, AND DENTAL SERVICES PROVIDED BY FQHCs IN THE U.S., AZ, CA, AND TX BETWEEN 2008 AND 2015</b>	<b>252</b>
<b>APPENDIX XI: FQHC REVENUE COLLECTED FROM PATIENT COVERAGE</b>	<b>256</b>
<b>APPENDIX XII: FQHC REVENUE COLLECTED FROM FEDERAL (BPHC) GRANTS IN THE U.S., AZ, CA, AND TX BETWEEN 2008 AND 2015</b>	<b>259</b>
<b>APPENDIX XIII: NUMBER OF FQHCs IN THE U.S., AZ, CA, AND TX BETWEEN 2008 AND 2015</b>	<b>264</b>
<b>APPENDIX XIV: ANNUALIZED FULL-TIME EQUIVALENT (FTE) OF SELECTED FQHC CLINICAL PERSONNEL BETWEEN 2008 AND 2015</b>	<b>265</b>

## **LIST OF FIGURES**

<b>FIGURE 1.1: FQHCs' SOURCES OF FUNDS FOR TOTAL REVENUE IN 2011</b>	<b>21</b>
<b>FIGURE 2.1: PROPORTION OF PEOPLE WITH ANNUAL INCOMES IN DIFFERENT FEDERAL POVERTY LEVEL (FPL) GAINING COVERAGE FROM JULY/SEPT 2013 TO JULY/SEPT 2014</b>	<b>68</b>
<b>FIGURE 2.2: LOGIC MODEL 1- MECHANISMS OF THE ACA AND ANTICIPATED IMPACT ON FQHCs</b>	<b>77</b>
<b>FIGURE 2.3: LOGIC MODEL 2- MECHANISMS OF THE ACA AND THE IMPACT ON FQHCs RESULTING FROM IMPLEMENTATION</b>	<b>80</b>
<b>FIGURE 4.1: PROPORTION OF FQHC PATIENTS' AGES 18 AND OLDER COVERED BY MEDICAID IN THE U.S., AZ, CA, AND TX, 2008-2015</b>	<b>117</b>
<b>FIGURE 4.2: PROPORTION OF FQHC PATIENTS' AGES 18 AND OLDER COVERED BY PRIVATE INSURANCE IN THE U.S., AZ, CA, AND TX, 2008-2015</b>	<b>118</b>
<b>FIGURE 4.3: PROPORTION OF FQHC PATIENTS' AGE 18 AND OLDER WHO WERE UNINSURED IN THE U.S., AZ, CA, AND TX, 2008-2015</b>	<b>118</b>
<b>FIGURE 4.4: PROPORTION OF FQHCs' REVENUE FROM PATIENT HEALTH INSURANCE COVERAGE IN THE U.S., AZ, CA, AND TX, 2008-2015</b>	<b>130</b>
<b>FIGURE 4.5: PROPORTION OF FQHCs' REVENUE FROM GRANT REVENUE IN THE U.S., AZ, CA, AND TX, 2008-2015</b>	<b>130</b>

## **LIST OF TABLES**

<b>TABLE 1.1:</b> BASIC PRIMARY CARE SERVICES AND SUPPORTIVE SERVICES OFFERED IN FQHCs	19
<b>TABLE 2.1:</b> COVERED BENEFITS OF THE MEDICAID PROGRAM	41
<b>TABLE 2.2:</b> PROVISIONS OF THE AFFORDABLE CARE ACT	52
<b>TABLE 2.3:</b> TEN ESSENTIAL BENEFITS INCLUDED IN PRIVATE INSURANCE PLANS PART OF THE ACA MARKETPLACE	54
<b>TABLE 2.4:</b> NATIONAL ESTIMATES OF PEOPLE GAINING COVERAGE UNDER THE ACA	56
<b>TABLE 2.5:</b> NATIONAL ESTIMATES OF PEOPLE GAINING COVERAGE WITH SPECIFIC INSURANCE TYPES UNDER THE ACA	57
<b>TABLE 2.6:</b> PRIMARY CARE PROVIDERS' (PCP) ACCEPTANCE RATE OF MEDICAID PATIENTS	60
<b>TABLE 2.7:</b> LIST OF STATES EXPANDING AND NOT EXPANDING MEDICAID ON 1 JANUARY 2014	66
<b>TABLE 2.8:</b> NATIONAL ESTIMATES OF PEOPLE GAINING COVERAGE WITH DIFFERENT INSURANCE TYPES UNDER THE ACA	67
<b>TABLE 3.1:</b> INTERVIEW SAMPLE	105
<b>TABLE 3.2:</b> LIST OF INTERVIEWED ADMINISTRATORS, ASSIGNED IDENTITY CODE, AND ROLES	106
<b>TABLE 3.3:</b> GENERATED CODES FROM INTERVIEW DATA	109
<b>TABLE 3.4:</b> GENERATED THEMES AND SUB-THEMES FROM INTERVIEW DATA	111
<b>TABLE 4.1:</b> SOURCE OF GRANT FUNDING FOR FQHCs	133

## **LIST OF APPENDIX FIGURES**

<b>APPENDIX IX, FIGURE 1:</b> NUMBER OF TOTAL OVERALL SERVICES PROVIDED BY FQHCs IN THE U.S., 2008-2015	251
<b>APPENDIX IX, FIGURE 2:</b> NUMBER OF TOTAL OVERALL SERVICES PROVIDED BY FQHCs IN AZ, CA, AND TX, 2008-2015	251
<b>APPENDIX X, FIGURE 3:</b> NUMBER OF TOTAL MEDICAL SERVICES PROVIDED BY FQHCs IN THE U.S., 2008-2015	252
<b>APPENDIX X, FIGURE 4:</b> NUMBER OF TOTAL MEDICAL SERVICES PROVIDED BY FQHCs IN AZ, CA, AND TX, 2008-2015	252
<b>APPENDIX X, FIGURE 5:</b> NUMBER OF TOTAL MENTAL HEALTH SERVICES PROVIDED BY FQHCs IN THE U.S., AZ, CA, AND TX, 2008-2015	253
<b>APPENDIX X, FIGURE 6:</b> NUMBER OF TOTAL DENTAL SERVICES PROVIDED BY FQHCs IN THE U.S., AZ, CA, AND TX, 2008-2015	253
<b>APPENDIX XI, FIGURE 7:</b> PROPORTION OF FQHC REVENUE FROM MEDICAID IN THE U.S., AZ, CA, AND TX, 2008-2015	256
<b>APPENDIX XI, FIGURE 8:</b> PROPORTION OF FQHC REVENUE FROM PRIVATE INSURANCE IN THE U.S., AZ, CA, AND TX, 2008-2015	256
<b>APPENDIX XI, FIGURE 9:</b> PROPORTION OF FQHC REVENUE FROM SELF-PAYERS IN THE U.S., AZ, CA, AND TX, 2008-2015	257
<b>APPENDIX XII, FIGURE 10:</b> FQHC REVENUE (NOMINAL AND REAL VALUE)	

RECEIVED FROM FEDERAL (BPHC) GRANT IN THE U.S. BETWEEN 2008 AND 2015	259
<b>APPENDIX XII, FIGURE 11:</b> FQHC INCOME (NOMINAL AND REAL VALUE)	
RECEIVED FROM FEDERAL (BPHC) GRANT IN ARIZONA BETWEEN 2008 AND 2015	260
<b>APPENDIX XII, FIGURE 12:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN CALIFORNIA BETWEEN 2008 AND 2015	261
<b>APPENDIX XII, FIGURE 13:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN TEXAS BETWEEN 2008 AND 2015	262
<b>APPENDIX XIII, FIGURE 14:</b> NUMBER OF OPERATING FQHC BETWEEN 2008 AND	
2015 IN THE U.S., AZ, CA, AND TX	264
<b>APPENDIX XIV, FIGURE 15:</b> ANNUAL FULL TIME EQUIVALENT (FTEs) OF PHYSICIANS	
(FAMILY PHYSICIANS, GENERAL PRACTITIONERS, INTERNIST) IN U.S., AZ, CA,	
AND TX, 2008-2015	265
<b>APPENDIX XIV, FIGURE 16:</b> ANNUAL FULL TIME EQUIVALENT (FTEs) OF NURSE	
PRACTITIONERS (NPs) IN U.S., AZ, CA, AND TX, 2008-2015	265
<b>APPENDIX XIV, FIGURE 17:</b> ANNUAL FULL TIME EQUIVALENT (FTEs) OF PHYSICIAN	
ASSISTANTS (PAS) IN U.S., AZ, CA, AND TX, 2008-2015	266
<b>APPENDIX XIV, FIGURE 18:</b> ANNUAL FULL TIME EQUIVALENT (FTEs) OF NURSES	
IN U.S., AZ, CA, AND TX, 2008-2015	266
<b>APPENDIX XIV, FIGURE 19:</b> ANNUAL FULL TIME EQUIVALENT (FTEs) OF MEDICAL	
PERSONNEL IN U.S., AZ, CA, AND TX, 2008-2015	267

### **List of Appendix Tables**

<b>APPENDIX I, TABLE 1:</b> ARIZONA FQHCs' BACKGROUND	234
<b>APPENDIX I, TABLE 2:</b> CALIFORNIA FQHCs' BACKGROUND	236
<b>APPENDIX I, TABLE 3:</b> TEXAS FQHCs' BACKGROUND	238
<b>APPENDIX II TABLE 4:</b> DESCRIPTION OF SELECTED VARIABLES USED COLLECTED	
FROM UDS DATA	239
<b>APPENDIX VIII TABLE 5:</b> SERVICES INCLUDED IN THE NUMBER OF OVERALL	
SERVICES PROVIDED TO PATIENTS	250
<b>APPENDIX XII, TABLE 6:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN THE U.S. BETWEEN 2008 AND 2015	259
<b>APPENDIX XII, TABLE 7:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN ARIZONA BETWEEN 2008 AND 2015	260
<b>APPENDIX XII, TABLE 8:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN CALIFORNIA BETWEEN 2008 AND 2015	261
<b>APPENDIX XII, TABLE 9:</b> FQHC INCOME (NOMINAL AND REAL VALUE) RECEIVED	
FROM FEDERAL (BPHC) GRANT IN TEXAS BETWEEN 2008 AND 2015	262

# Acronyms and abbreviations

ACA: Affordable Care Act

ACP: American College of Physicians

ARRA: American Recovery and Reinvestment Act of 2009

ASPE: Office of the Assistant Secretary for Planning and Evaluation

AZ: Arizona

BPHC: Bureau of Primary Health Care

CA: California

CBO: Congressional Budget Office

CEO: Chief Executive Officer

CHC: Community Health Centers (also known as Federally Qualified Health Centers)

CHIP: Children's Health Insurance Program

CMS: Center for Medicaid and Medicare Services

CPI: Consumer price index

CPS: Current Population Survey

D.C.: District of Columbia

FPL: Federal Poverty Level

FQHC: Federally Qualified Health Centers

FTE: Full Time Equivalent

FY: Fiscal Year

GDP: Gross Domestic Product

GP: General Practitioner

HCGI: Health Center Growth Initiative

HHS: Health & Human Services

HIPAA: Health Insurance Portability and Accountability Act of 1996

HMO: Health Maintenance Organizations

HR: Human Resources

HRMS: Health Reform Monitoring Survey

HRSA: Health Resources and Services Administration

HSC: Center for Studying Health Systems Change Health Tracking Physician Survey

IT: Information Technology

MD: Doctor of Medicine

MEPS: Medical Expenditure Panel Survey

MUA/P: Medically Underserved Areas and Population

NACHC: National Association of Community Health Centers

NHIS: National Health Interview Survey

NP: Nurse Practitioner

OECD: Organisation for Economic Cooperation and Development

PA: Physician Assistant

PPACA: Patient Protection and Affordable Care Act

PCP: Primary Care Provider

PPS: Prospective payment system

PHSA: Public Health Service Act

OEO: Federal Office of Economic Opportunity

RN: Registered Nurse

SDG: Sustainable Development Goals

SSI: Social Security Income

TX: Texas

UDS: Uniform Data Systems

UHC: Universal Health Coverage

UN: United Nations

US: United States

WBI: Gallup Healthways Well-Being Index

WHO: World Health Organization



# Chapter 1: Introduction

## 1.1 Prologue

Historically, low-income populations in the United States are the least likely to have health insurance. Millions have very limited options and resources to obtain coverage. Various attempts have been made over the past decades to address this problem via incremental healthcare reforms, with little success. In 2009, President Obama made healthcare a key part of his agenda. In his speech to the nation in September 2009, he stated it was essential for his administration to address ongoing problems with the current healthcare system because:

*“We are the only advanced democracy on Earth—the only wealthy nation—that allows such hardships [being uninsured] for millions of its people. There are now more than thirty-million American citizens who cannot get coverage. In just a two-year period, one in every three Americans goes without healthcare coverage at some point. And every day, 14,000 Americans lose their coverage. In other words, it can happen to anyone.”* (President Obama State of the Union Speech, 2009)

Unlike previous reform efforts, President Obama succeeded in signing a comprehensive healthcare reform called the Patient Protection and Affordable Care Act (ACA) into law on 23 March 2010.

The reform consisted of many provisions aiming to address weaknesses in the U.S. health system. Of particular interest was the way the reform would expand coverage to the population. Instead of introducing a new health insurance system, the ACA would extend coverage within the existing mixed-insurance system simultaneously funded by both public and private sources.

Many scholars have claimed that expanding health care coverage through public, rather than private, funding sources is more effective. In the last century, many high-income countries have expanded coverage and advanced towards universal health coverage (UHC) by establishing national health care systems or

social insurance schemes largely funded by public funding sources (World Health Organization (WHO), 2010). However, there is ongoing debate over the role of private funding sources and the extent to which they can address challenges in health systems financing and the pursuit of health policy goals such as achieving UHC (Colombo and Tapay, 2004). The WHO has acknowledged there is no single way of financing a health system to move it closer to achieving UHC (WHO, 2010; Kutzin, 2012). The experience of the U.S. under the ACA can further provide evidence of the strength and weaknesses of the two funding sources, in terms of their ability to support the expansion of coverage to the population.

This thesis examines the U.S.'s attempts to expand coverage under the ACA, in particular to the low-income uninsured population. This is accomplished by investigating the impact of the reform from the perspectives of primary care providers called Federally Qualified Health Centers (FQHCs), which form part of the nation's 'safety net' system. Investigating the experience of FQHCs under the reform provides a unique lens when understanding the effectiveness of the ACA's effort to expand coverage as they disproportionately serve low-income populations. The reform also includes provisions that directly impact these providers' ability to provide primary care services. According to Shin et al., (2015), understanding the impact of the reform through the perspective of FQHCs provide the opportunity to evaluate the effectiveness of translating the ACA's aims into practice, to improve coverage and access to care of disadvantaged populations.

## **1.2 Health insurance system in the U.S.**

The U.S. health system does not have a nationwide health insurance program providing coverage to everyone in the country (Ridic, Gleason, and Ridic, 2012). Rather, the population obtains coverage through a mixed-health insurance system—a combination of public and private insurance programs (Ridic, Gleason, and Ridic, 2012). The majority of people in the U.S. obtain private insurance coverage from their employers, while a smaller percentage purchase

it directly as individual consumers (Mossialos, 2016; Shi and Singh, 2017). The second major source of health insurance in the U.S. is publicly funded insurance programs (Mossialos et al., 2016) and the Medicaid program is the largest public insurance program in the U.S. (Wilensky & Rosenbaum, 2005; American College of Physicians (ACP), 2008). The program is jointly funded by the federal and state governments and generally provides coverage to low-income families, qualified pregnant women and children, and individuals receiving supplemental income (ACP, 2008; Taylor, 2012; Center for Medicare & Medicaid, 2017). The eligibility requirements and covered services vary between states as state governments have the power to increase funding to expand coverage relative to what federal funding would allow (Amelung, 2013).

### **1.3 The U.S. safety net system and Federally Qualified Health Centers (FQHCs)**

The U.S. safety-net system is one of several delivery of care systems (e.g., managed care, military medical care system) in the U.S. and plays a vital role in providing healthcare to vulnerable populations nationally (Shi & Singh, 2017). The system primarily serves low-income individuals with public insurance coverage; uninsured individuals; individuals that are members of specific minority groups and immigration statuses; and individuals residing in areas designated as disadvantaged due to geographical or economic factors (Shi & Singh, 2017). The safety net is comprised of various health care providers such as local health departments, public hospitals, community health clinics (also known as Federally Qualified Health Centers), migrant health centers, free clinics, and emergency departments (Staiti et al., 2006; Katz, 2011; Shi & Singh, 2017). Some providers serve specific groups of disadvantaged people. For example, there are health centers for the homeless that provide specific services that are relevant to that group (Heisler, 2016). There are also health centers that serve migrant farmworkers and seasonal workers (Heisler, 2016). Different types of safety-net providers receive specific grant funding from the

federal government to support their missions (Sigel, Regenstein, and Shin, 2004; Taylor, 2012).

This study focuses on Federally Qualified Health Centers (FQHCs), which provide primary care services (see Table 1.1 for a list of provided services) to meet the healthcare needs of medically underserved communities (Taylor, 2012; Heisler, 2016). These were established in 1965 as part of President Lyndon Johnson's strategy to address poverty (Adashi, Geiger and Fine, 2010). The first FQHCs were built in urban and rural areas in Boston and Mississippi and were tasked with addressing health disparities among racial and ethnic minority groups, the poor, and the uninsured in the region (Adashi, Geiger and Fine, 2010). They aimed to provide care to everyone, regardless of ability to pay, and offer discounted rates to uninsured individuals based on their income and family size (Adashi, Geiger and Fine, 2010; Russell, 2013).

Successive governments have expanded support for FQHCs as they were seen to demonstrate an efficient and effective primary care model (Hawkins & Groves, 2011). Evidence has shown they provide an equal or superior quality of care compared to other primary care providers (Shin et al., 2012b). Moreover, it was found that their operational cost was 24 percent lower than other primary care providers (Ku et al., 2010).

**Table 1.1: Basic primary care services and supportive services offered in FQHCs**

<b>Primary care services offered in FQHCs</b>	<ul style="list-style-type: none"><li>• Primary care</li><li>• Diagnostic laboratory and radiologic services</li><li>• Preventative services including dental, immunizations, well child visits, prenatal, and perinatal services</li><li>• Disease screening</li><li>• Blood level screenings for elevated lead levels, communicable diseases and cholesterol</li><li>• Eye, ear, and dental screening for children</li><li>• Family planning services</li><li>• Mental health and substance abuse services</li><li>• Emergency medical and dental services</li><li>• Pharmaceutical services</li></ul>
---	--

<b>Supportive services offered in FQHCs</b>	<ul style="list-style-type: none"><li>• Case management</li><li>• Financial support services</li><li>• Enabling services: Education about services, health education, outreach transportation and translation</li></ul>
---	---

Source: Russell, 2013

### **1.3.1 Location and patient demographics of FQHCs**

In order for FQHCs to receive federal grant funding, they are required to serve areas designated by The Department of Health and Human Services (HHS) as medically underserved areas or populations (MUA/P). MUA/P areas experience high rates of poverty and shortages in healthcare services (Davis, Abrams and Stremikis, 2011; Hennessey, 2013; Heisler, 2016) and are located in both urban and rural settings. Recent estimates suggest there are more than 8,000 FQHC sites serving 20 million people, or 5 percent of the current population (Adashi, Geiger and Fine, 2010).

According to Adashi, Geiger and Fine (2010), half of the patients served by FQHCs were from ethnic backgrounds, were immigrants, or lived in geographically isolated areas and seven out of ten were estimated to be in poverty. According to the analysis of Uniform Data Systems in 2010 from Health Resources and Services (HRSA) by Shin, Rosenbaum and Paradise (2012b), 72 percent of patients lived below 100 percent of the federal poverty level (FPL)

and 92 percent lived below the 200 percent FPL or \$36,630 for a family of three. An estimated 39 percent of FQHCs' patients were covered by the publicly funded Medicaid program (Taylor, 2012), 25 percent had coverage from private insurance or Medicare (Adashi, Geiger and Fine, 2010), and 36 percent were without coverage (Taylor, 2012).

### **1.3.2 Financing of FQHCs**

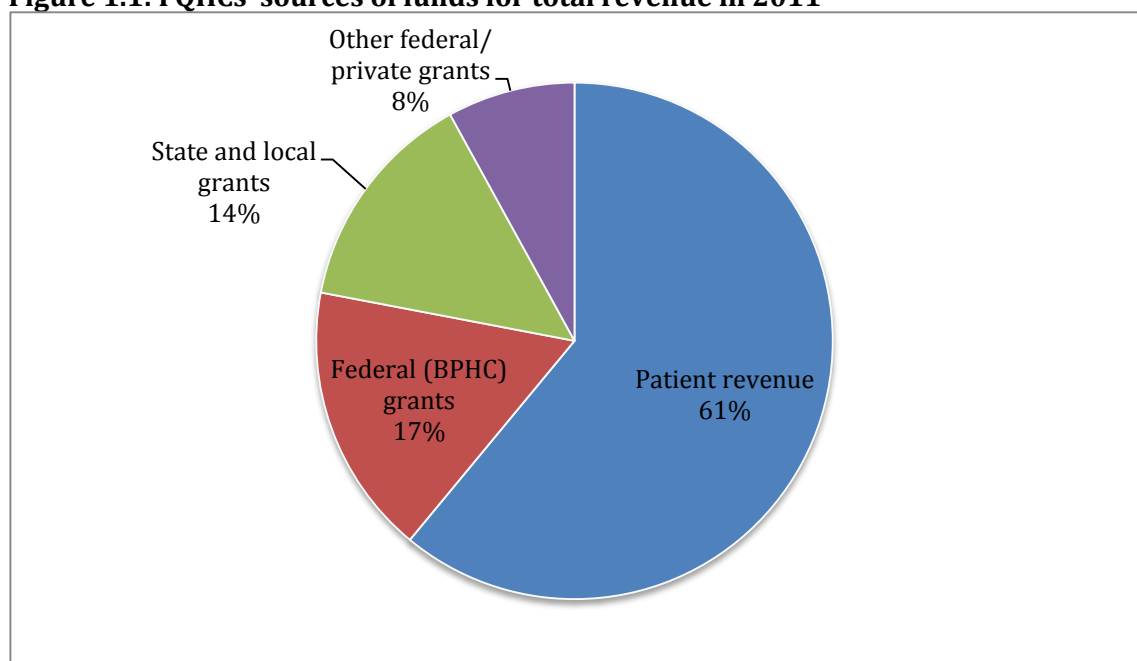
FQHCs are financed through two main sources: income from patients and grants. According to data from the Uniform Data Systems of 2011, reported in Russell (2013), income from patients accounted for 61 percent of the total revenue, while the total revenue from grants was 39 percent (with federal grants accounting for 17 percent of total revenue; state and local grants accounting for 14 percent; and other federal and private grants accounting for the remaining 8 percent) (see Figure 1.1).

Revenue from patients is comprised of income obtained from public insurance programs (e.g., Medicaid, Medicare, and Children Health Insurance Program (CHIP), other public programs), private insurance, and self-payers (Beeson et al., 2012; Russell, 2013; Taylor, 2012). Funds from the Medicaid program are the most important source of patient revenue for FQHCs as they account for the largest proportion of their total patient revenue (Shin et al. 2012b; Russell, 2013).

Grant revenue is comprised of income from federal, state, local grants, non- governmental grants, and contracts (Beeson et al., 2012; Russell, 2013; Taylor, 2012). Revenue from federal grants comes primarily from Section 330 of the Public Health Service Act managed by Health Resources and Services Administration (HRSA) Bureau of Primary Health Care (BPHC) under the Department of Health and Human Services (HHS) (Adashi, Geiger and Fine, 2010). The 330 grants (also known as BPHC grant funds) financially support various aspects of health centers' operation and delivery of care (Heisler, 2016). For example, the distribution of BPHC grants has allowed new grantees to open new FQHCs, and some FQHCs to open new satellite sites; expand or provide

additional services; improve infrastructure to deliver quality healthcare; and construct or renovate facilities (Russell, 2013; Heisler, 2016). The federal government offers planning grants under the BPHC to allow FQHCs to conduct assessments of their patients and communities to better understand their needs and improve their services (Russell, 2013; Heisler, 2016). In addition, federal grant funding provides financial support to cover uncompensated care from serving uninsured patients or to offer subsidized care to other patients (Taylor, 2012). As a result, FQHCs are able to implement the mission of serving anyone regardless of their ability to pay.

**Figure 1.1: FQHCs' sources of funds for total revenue in 2011**



Source: Russell (2013)

### **1.3.3 FQHCs and the Affordable Care Act (ACA)**

FQHCs have received near bipartisan support from the federal government since their inception in 1965 (Fiscella & Geiger, 2014). However, the federal budget and policies have had major implications on FQHCs' ability to function and expand their capacity. For example, between 1980 and 1990, the level of federal grant funding given to FQHCs declined (Beeson et al., 2012). By contrast, President George W. Bush (2000-2008) strengthened support for FQHCs and enabling growth by increasing their funding to \$1.02 billion in the fiscal year

2000 budget and \$2.1 billion in 2008 (Taylor 2012; Beeson et al., 2012). President Obama continued to support the expansion of FQHCs by adding \$2 billion to their budget for the 2009 and 2010 fiscal years in the American Recovery and Reinvestment Act of 2009 (ARRA) (Hawkins & Groves, 2011).

While changes to federal grant funding impact FQHCs, policy changes to health insurance coverage, particularly within public programs such as Medicaid, have major implications for these providers as they account for a significant proportion of their overall revenue (Beeson, et al., 2012; Heisler, 2016). Three policy changes to the Medicaid program implemented within the last few decades have particularly impacted FQHCs revenue. The first occurred when the federal government extended the program to cover pregnant women, children and their parents (in some states) during the 1980s and 1990s (Beeson et al., 2012). A second policy change that impacted FQHCs was the enactment of federal legislation, which included FQHC services as part of the benefits covered by Medicaid (Beeson et al., 2012). Lastly, the state Medicaid program was required to pay FQHCs prospectively established rates (PPS rates) that reasonably covered the cost of care provided to Medicaid patients (Beeson et al., 2012). As a result of this last measure, payment rates received from the program are higher than those received from other coverage types, such as private insurance, or self-payers (Taylor, 2012). The PPS payment scheme pays FQHCs on a per-visit basis at levels based on the reported cost of care from the previous year (Taylor, 2012). A smaller proportion of FQHC revenues come from Medicare, other public insurance programs, and self-payer patients (Beeson et al., 2012).

The ACA was expected to have substantial impact on FQHCs, as it contained several provisions that would directly and indirectly affect these providers. The main provision that was expected to do so was the expansion of insurance coverage, particularly through the Medicaid program (Shin et al., 2012b; Taylor, 2012). Under the ACA, adults meeting citizenship requirement with an annual income falling below 138 percent of the federal poverty level (FPL) (\$15,800 for individuals; \$32,300 for a family of four in 2014) were eligible for Medicaid for the first time from 2014 (Ku et al., 2010; Hawkins &



Groves, 2011; Manchikanti et al., 2011; Taylor 2012). As a result, FQHCs and many other health care providers obtained billions of dollars from serving newly insured Medicaid patients (Haeder & Weimer, 2015). However, the implementation of Medicaid expansion did not occur in all states given the Supreme Court's 2012 decision making it optional at a state level (Taylor, 2012; Abraham, 2014). As a result, low-income patients residing in states deciding against an expansion of the program were at risk of remaining without coverage, if they were not able to obtain private health insurance (Taylor, 2012).

The establishment of the insurance marketplace, which offered federally regulated private insurance, was expected to positively impact FQHCs, as it would allow some of their uninsured patients ineligible for Medicaid to gain coverage. Uninsured adults, who could not receive employer-based insurance, with incomes between 139 to 400 percent FPL could receive "affordability" tax credits, based on their adjusted family income to purchase private insurance from the newly established health exchanges (Ku et al., 2010; Rosenbaum et al., 2010). It was estimated that 25 million individuals with low and moderate-income levels not eligible for Medicaid would be able to purchase private insurance from the health exchanges (Hawkins & Groves, 2011). FQHCs were expected to also benefit from the expansion of private insurance, as the ACA required all private insurance plans purchased from the health exchange to include FQHCs in the provider network (Hawkins & Groves, 2011; Rosenbaum et al., 2010; Taylor, 2012).

The second provision that would directly impact FQHCs was the distribution of enhanced federal funding (Manchikanti et al., 2011). The ACA established the Community Health Center Trust Fund, which dedicated \$11 billion to FQHCs over 5 years, starting in fiscal year (FY) 2011 and ending in FY 2015, or when the money was expended (Patient Protection and Affordable Care Act, 2010; Hawkins & Groves, 2011; Taylor, 2012). The funding would be split into two streams. \$1.5 billion was dedicated to capital funds assigned to expand and improve physical facilities of current FQHCs or open new sites (Beeson et al., 2012; Hennessy, 2013). The rest of the \$11 billion (\$9.5 billion)

was dedicated to projects that would improve the operations and increase the capacities of FQHCs to provide more services and serve more patients (Beeson et al., 2012; Hennessey, 2013). For example, the funding would help existing and newly established FQHCs to expand working hours for services and offer broader health care services such as mental health, dental health, and pharmacy services (Rosenbaum, et al., 2010). The federal government's investment of \$11 billion to FQHCs was expected to enable these providers to serve 44 million patients in 2015 and 50 million by 2019 (Rosenbaum, et al., 2010). Ku et al. (2010) estimated that the additional funds would allow FQHCs to serve 19 million people in 2009 and this number would increase to 37 million by 2019.

#### **1.4 Aims and objectives**

The ACA was expected to impact FQHCs and their patients particularly through the implementation of coverage expansion and the distribution of enhanced federal funding a certain way. However, the initial design of the ACA was not fully implemented as the expansion of the Medicaid program did not occur in all states due to the Supreme Court ruling, thus worth further examining more in depth. The aim of this thesis is to understand the impact of the Affordable Care Act on Federally Qualified Health Centers' ability to provide primary care for low-income populations. The key changes to be considered are expansion of Medicaid and private health insurance part of the newly established marketplace, alongside enhanced federal funding for these safety net providers. The ACA was a reform that focused on extending coverage and improving access to care particularly to low-income individuals, therefore evaluating its impact on FQHCs is an appropriate lens as they disproportionately care for them.

Two objectives were developed to help address the study aim. The first objective was to determine the changes in patient coverage, revenues, and demand for FQHCs in Arizona, California, and Texas. This would be achieved through the analysis of UDS data from 2008 to 2015 and interview data from 23 administrators Data from two years (2008 to 2010) prior to the

implementation of the ACA and up to the most recent available year (2015) were included to determine trends in coverage, resources and demand prior to and thereafter following the reform. This provides contextual information that helps to further explore the second objective, which aims understand the impact of the coverage expansion on FQHCs and the actions they took to respond to the changes.

## **1.5 Thesis overview**

The next chapter, Chapter 2, presents the background literature from which this thesis draws and to which it aims to contribute. It explores the literature on health systems financing and the debate concerning the strengths and weaknesses of private and public insurance in terms of their ability to support the goal of achieving equitable healthcare coverage and access. The chapter then presents empirical literature on the efforts of the American government and the Massachusetts' state government to expand health care access. While the federal government has attempted to expand health care access through multiple policies, their level of success has been limited due to the complexity of the implementation process. A discussion on policy implementation follows as it highlights the debates around factors that can cause the process to become complex and challenging. The chapter continues by presenting additional literature review on the Affordable Care Act to help establish the current knowledge on this topic. It also helped developed two logic models— the first logic model shows the anticipated impact of the ACA on FQHCs. This helped identify theories on how this policy would impact these providers. The second logic model shows the actual impact of the ACA after it enactment. This logic model helped confirm whether the anticipated impact of the ACA was realized in practice. It also helped identify the gaps in knowledge on this topic, which helped create the aim of this study.

Chapter 3 provides an account of the methods undertaken to address the aim and objectives of this study. It starts with a discussion of the epistemological stance underpinning the research, followed by a discussion of

the multiple case study approach and the process of selecting the cases (that is, the three chosen states; and within them, the chosen FQHCs). The chapter also provides background information for each of the selected FQHCs. It then goes on to discuss the two data sources used in the research, the methods used to collect and organize the data, and the approaches used in analyzing the data and synthesizing the findings.

Chapters 4 and 5 present the substantive results of the study. Objective one is primarily addressed in chapter 4 as it aims to understand the changes in FQHCs' patient coverage, demand for care, and revenue under the ACA. The chapter draws on findings from an analysis of relevant state-level UDS data from Arizona, California, and Texas and an analysis of 23 semi-structured interviews of administrators. Chapter 5 primarily addresses objective two as it aims to present the perspectives of FQHC administrators in regards to their experiences and responses to the ACA and their ability to meet the needs of their patients.

Chapter 6 provides a discussion and interpretation of the main findings, considering how they fit with broader literature on this topic and how the results of the study might contribute to our understanding of efforts to expand health care coverage within a mixed insurance market. Chapter 7 concludes the thesis, providing a summary of the overall findings and their contribution to the wider literature.

# Chapter 2: Literature review

## 2.1 Introduction

This chapter aims to locate this thesis in the context of existing theoretical and empirical literature regarding the role of insurance in achieving universal health coverage (UHC), both internationally and in the U.S. in particular.

The first section of this chapter (2.2) explores the common objectives of health systems, as described by the World Health Organization (WHO), and how UHC has been identified as a key underpinning goal. Progress towards UHC is an ongoing process that has been widely advocated in global health debates and has been endorsed as part of the Sustainable Development Goals (SDGs).

Section 2.3 explores the current debate on the prospects for advancing towards UHC in the context of private or public funding of health care. Most health systems that have closest to achieving the UHC ideal have a predominant reliance on public finance (including general tax-based systems and those with social health insurance). It is unclear to what extent it is feasible for health systems that have a predominant reliance on private financing to move closer to UHC through various forms of subsidies and regulatory action. The ACA represents perhaps one of the most comprehensive attempts to achieve this. Section 2.4 shifts attention to efforts to reform the U.S. health system in the last several decades in order to extend coverage, and the challenge of doing so in the context of a mixed-insurance system. Massachusetts' 2006 healthcare reform is also discussed under this section (section 2.4.2) as the state's experience offers potential insights on expanding coverage within a mixed-insurance system. The experience of the U.S. and the state of Massachusetts to enact reforms that aimed to expand coverage also highlight the challenges with the policy implementation process. Section 2.5 further discusses the current debate on policy implementation and highlights the challenges of the process within a multi-government set-up such as what is found in the U.S.

Section 2.6 provides a review of the Affordable Care Act. It is then followed by section 2.7 where it focused on presenting the anticipated impact of the ACA on coverage expansion and on FQHCs (sections 2.7.1, 2.7.2, 2.7.3). Due to the timing of this study, limited literature was analyzed that discussed the actual impact of the ACA on coverage expansion (section 2.8) and on FQHCs (section 2.8.1, 2.8.2, 2.8.3). Information from section 2.7 and section 2.8 was used to help identify what is currently known about this topic and helped inform the design of this study. It also enabled the development of two logic models, which are presented in section 2.9. Section 2.10 provides a concluding summary.

## **2.2 Health system goals, objectives and universal health coverage**

According to the World Health Report (2000) "*Health Systems: Improving Performance*," the main goal of health systems is to improve people's health and treat them with dignity, while ensuring they are protected against the financial cost of being ill (World Health Organization (WHO), 2000). In order for a health system to accomplish this, it must consider meeting three fundamental objectives: (1) improving the health of the people it serves; (2) being responsive to people's expectations; and (3) reducing the risk of people generating high medical bills while accessing care (WHO, 2000; WHO, 2007; WHO Western Pacific Region, 2010; Franken & Koolman, 2012). Principles of equity must be considered when health systems aim to achieve the WHO's recommended goals and objectives as it influences the way in which health is distributed due to available resources (Hurley, 2001; Baltussen et al., 2011).

Since 1948, the United Nations (UN) has recommended its member states consider achieving an equitable distribution of health to their population through their Universal Declaration of Human Rights (UN General Assembly, 1949). Health systems attempting to achieve equal distribution of healthcare must ensure resources are administered in a way that equalizes health access for all social groups (Whitehead, 1991; Braveman & Gruskin, 2003). Achieving equal access to care however is an ongoing challenge for health systems and

population group experience different level of access to care. One of the main reasons certain population groups have different level of access to care is their financial capacity. Low-income populations in particular are at risk of not accessing care they need and/or experiencing financial hardship when receiving care given difficulties meeting any form of cost sharing associated with healthcare services (WHO, 2010; Sachs, 2012; Evans, Marten and Etienne, 2012). As a result, low-income groups have been found to experience a heavier burden of illness and/or disabilities, and are more likely to die younger (Whitehead, 1991).

In an attempt to achieve equity in the distribution of healthcare services and improve access to the general population, the WHO in 2005 encouraged health systems to work towards universal health coverage (UHC) through their WHA58.33 resolution “Sustainable health financing, universal coverage and social health insurance” (Schmidt, Gostin and Emanuel, 2015; Wong, Allotey and Reidpath, 2016). The World Health Organization defines UHC as:

*“... access to key promotive, preventive, curative, and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. The principle of financial-risk protection ensures that the cost of care does not put people at risk of financial catastrophe.” (World Health Organization Resolution, 58.33, 2005)*

According to the WHO, health systems must consider expanding three dimensions of coverage to achieve UHC. The three dimensions are: *Population*—the extent of the population to be covered; *Services*—the extent of the services covered and provided to the population; and *Direct cost*—the proportion of the total cost of services covered for the population (WHO, 2010). The overall aim for health systems is to utilize their resources to extend each dimension, but various factors such as preference, constraints, and the need of the population could hinder that effort (Boerma et al., 2014; WHO, 2015). Government resources may affect their ability to advance the three dimensions simultaneously (Jamison et al., 2013; Voorhoeve et al., 2016). Therefore, achieving UHC has been viewed as an ongoing dynamic process rather than a one-time goal that can be achieved (Boerma et al., 2014; Schmidt, Gostin, Emanuel 2015; WHO, 2015). According to the Lancet’s *Commission on Investing in Health* (Jamison et al., 2013), “progressive universalism” introduced by Gwatkin and Ergo (2011) may be a more realistic strategy for governments to undertake in a situation that prevents them from extending the three dimensions of UHC simultaneously. There are two forms of progressive universalism. The first aims to provide coverage to the entire population and is supported by public finance (Jamison et al., 2013). The coverage includes essential services with no user fees, and the increase in financial resources would enable the addition of other covered benefits (Jamison et al., 2013). Required treatments that are not included in the essential services would require individuals to obtain private insurance (Jamison et al., 2013). The second form of progressive universalism also provides coverage to the entire population, but includes co-payments with the exception of low-income people (Jamison et al., 2013). It would be funded through a combination of multiple sources, including public finance from general taxation and private finance from insurance premiums and co-payments (Jamison et al., 2013). While it would allow a wider range of people to gain coverage and ensure low-income populations are not at risk of experiencing financial hardships when accessing care, it requires extensive regulation and oversight (Jamison et al., 2013).



The goal of UHC has been widely endorsed as the basis for providing equal access while protecting individuals from financial hardship when doing so (Rashford 2007; Kutzin, 2013; Ji & Chen, 2014; Wong, Allotey and Reidpath, 2016; Voorhoeve et al., 2016). Global support for UHC was highlighted when it was included in the global agenda of the 2012 United Nations General Assembly Resolution (Tangcharoensathien, Mills and Palu, 2015; Chapman, 2016). This paved the way for UHC to be included in the UN's post-2015 Sustainable Development Goals (SDGs) (WHO, 2015; Ghebreyesus 2017; Reddock, 2017). Thus target 3.8 of the SDGs is to:

*"Achieve universal health coverage, including financial risk protection, access to quality essential health care – and access to safe, effective quality and affordable essential medicine and vaccines for all."* (World Health Organization, 2015 p. 8)

In order to support progress towards achieving UHC, the WHO and World Bank have worked together to develop a monitoring framework focuses on two key components: the *depth* of health coverage offered, and the *proportion of healthcare costs that are covered at the point of access* in order to minimize financial hardship when accessing care (Boerma, 2014; WHO & World Bank, 2015). Depth of coverage is monitored through a range of indicators that include various preventative-based services and treatment-based services (treatment, rehabilitation and palliative care services) (Boerma, 2014). In tracking the ability of health systems to ensure people have lower risk of experiencing financial hardships when accessing care, indicators for out-of-pocket expenses are monitored for incidence of financial catastrophe from health expenditures (Boerma, 2014; WHO & World Bank, 2015).

While governments attempt to achieve UHC in different ways, the way in which a health system is financed is a critical element. The following section discusses the role of health finance in achieving UHC, and presents the current debate regarding the feasibility of doing so within private and public funding systems. The section identifies gaps in current knowledge and highlights the potential contribution of this thesis in examining the United States' experience

of attempting to expand coverage financed in a mixed insurance market, particularly for low-income populations.

## **2.3 The role of finance in achieving universal health coverage**

The function of finance is to support the operation of a health system by collecting revenue, pooling resources, and purchasing health-related goods and services (WHO, 2000; Schieber et al., 2006). The management and distribution of funding that finances a health system, thus can determine its ability to achieve equity in distributing care, efficiency in delivering care, and the health outcomes of the population (Schieber et al., 2006). The financial structure of a system can also determine its ability to meet intermediate objectives and overall goals (Kutzin, 2013).

According to the WHO, there is no specific financial model that can ensure a health system achieves UHC (WHO, 2015). It has also been argued that there is nothing inherently good or bad about public or private financing, as the main issue is the distribution of resources and how the system enables access to care, and promotes equity and efficiency (Schieber et al., 2006). Nevertheless, many studies have shown that healthcare systems with predominant reliance on public finance are those that have come closest to the UHC ideal in terms of equity of access and financial protection (WHO, 2000; Hurley, 2001; Kutzin, 2001; WHO, 2010; WHO, 2015).

Public funding has been the main source of finance for many health systems achieving near UHC (Colombo & Tapay, 2004). It is theorized that publically financed health systems are more effective in achieving equity and extending coverage to the population, as they have the ability to allocate resources according to need, whereas privately financed markets allocate according to demand – a concept that is based on individuals' willingness and ability to pay the market price (Williams, 1988; Hurley, 2001). It follows that individuals without effective demand, either due to unwillingness or inability to pay, will tend to be unable to access coverage even in a well-functioning market system.

A second factor making publically funded health systems effective in extending coverage and achieving near UHC, is their efficiency in generating pooled prepaid funds. According to several studies (WHO, 2000; Hurley, 2001; Kutzin, 2001; WHO, 2015), publically funded sources are inherently better at increasing the level of pooled resources because the government can effectively collect prepaid revenue on behalf of groups of people or the population. These funds can then be used by health systems to provide coverage by spreading the financial risk associated with ill- health among the population, thus reducing individual risk of being confronted with high medical cost (WHO, 2013). The government can also increase pooled resources by reallocating funds from other sectors (e.g. education, transportation, etc.), to increase healthcare expenditure, or generate more funding by increasing taxation (Kutzin, 2001).

Another benefit of using pooled prepaid funds from public funding source is their ability to reduce well-understood market failures in the voluntary private health insurance sector, including adverse and risk selection. Adverse selection occurs when insurers' premiums attract a disproportionately large number of high-risk consumers, leading to progressively higher premiums and incomplete markets (Hurley, 2001; He, 2017). Risk selection is when insurers choose to provide coverage to the lowest risk individuals in order to reduce costs and expenses (WHO, 2000; Hurley, 2001; Thomson and Mossialos, 2006). Both forms of selection will lead to gaps in coverage that are unacceptable from a UHC perspective. In most forms of public financing, in contrast, adverse and risk selection are eliminated as everyone is provided with the same level of coverage and everyone must contribute to pooled resources (WHO, 2000; Hurley, 2001; Hindriks, 2002; Sekhri & Savedoff, 2006). This is possible because the state has the unique power to compel individuals to pay into a defined health coverage program (Kutzin, 2012; Jamison et al., 2013).

In addition, publicly funded health systems are more likely to ensure the most disadvantaged can gain coverage and access care without risking high medical costs, causing them financial hardships (Schoen et al., 2000). For example, for low-income populations out-of-pocket expenses or cost sharing can introduce inequities and barriers to accessing care (Rasel, 1995; Light,

2003; Cunningham & Hadley, 2004; Cunningham & Nichols, 2005; Hoffman & Paradise, 2008). Publicly funded systems can minimize this by reducing out-of-pocket expenses (Kumar et al, 2011). This had been observed in countries with publicly funded health systems (such as Australia, Canada, France, Germany, the Netherlands, New Zealand Norway, Sweden, and the U.K.) as they include mechanisms to control for out of pocket expenses (Schoen et al., 2010). For example, patients in Canada and the United Kingdom are not confronted with out of pocket expenses at the point of receiving primary care services (ACP, 2008; Schoen et al., 2010). Other countries such as France, Germany, Sweden, and Norway, place caps on cost sharing, based on individual income (Schoen et al., 2010; Stabile 2013).

Although publicly funded health systems have their strengths, they also have weaknesses. According to Colombo & Tapay (2004) and He (2017), publicly funded systems are faced with bureaucracy and rigidities, which impact efficiency and can cause dissatisfaction amongst providers and patients. Funding to the health system can also fluctuate as a result of the government's variable ability to generate revenue or through changes in policy. As a result, covered services can change and reduced payment to providers may lead to reduced services and longer waiting periods for care (ACP, 2008). Therefore, governments have increasingly been attracted to private funding sources to address such challenges in the sector (Colombo & Tapay, 2004; He, 2017).

No country has achieved near UHC by depending mainly on private finance through the voluntary purchasing of private health insurance (Fuchs, 1996; WHO, 2010; Kutzin, 2012; Jamison et al., 2013). However, there are advocates that believe private finance has a role in expanding coverage and supporting health systems move towards achieving UHC. Advocates for the increased role of private funding theorize that privately funded health systems prioritize a population's needs (William, 1998), based on providing them with choices in coverage (Jong & Rutten, 1983; Banoob, 1994; Colombo & Tapay, 2004). They also provide health insurance to segments of the population ineligible for coverage under public programs and fill existing coverage gaps in public systems (Colombo & Tapay, 2004; He, 2017). Moreover, they may help

alleviate the pressure on publicly funded systems, and encourage segments of the population who can afford care to access it from the private sector (He, 2017).

However, health systems dependent on private funding collected from voluntary purchasing of private insurance are more likely to confront issues with uninsurance and underinsurance. Without government support, private insurers cannot be relied upon to ensure a population is covered, as populations may choose to remain uninsured or be unable to pay for coverage (Hurley, 2001). In addition, private insurance markets have a priority to “allocate goods and services on the basis of a person’s ability and willingness to pay” (Hurley, 2001, p.236). Therefore, segments of the population—particularly those that are low-income—risk not being able to afford private health insurance causing them to be without coverage and unable to access healthcare services (Hurley, 2001; Jamison et al., 2013; He, 2017). Privately financed insurance systems also increase the risk that segments of the population will experience financial hardship when accessing care, due to high out of pocket expenses arising from cost sharing (Schoen et al., 2000; Schoen et al., 2010). Several studies have found low-income populations in such systems experience problems paying medical bills, avoid preventative care, cannot access care, and/or go without medications (Schoen et al., 2000; ACP, 2008; Rice et al., 2014). Schoen et al. (2010) also found American nonelderly adults with private insurance were less confident in their ability to pay for care due to affordability, more likely to have spent more than \$1,000 or more in out of pocket expenses, and more likely to have high medical bills compared to those from higher income countries with health systems relying more on public finance.

While publicly financed systems are generally thought to be fairly effective in avoiding adverse and risk selection in health insurance, privately financed systems are widely affected by these issues which can cause certain segments of the populations to be underinsured or uninsured (WHO, 2000; Hurley, 2001; He, 2017). Advocates of private financing have suggested these weaknesses can be effectively addressed through additional government regulations and oversight to maximize the market’s ability to provide coverage to the entire

population (Herring & Satomero, 2000; Kutzin, 2001; Carmichael & Pomerleano, 2002; Sekhri & Savedoff, 2006). For example, the Dutch and Swiss health systems both provide coverage through private insurers and achieve near UHC by incorporating individual mandates and providing subsidies to individuals to ensure affordability (Herzlinger & Parsa-Parsi, 2004; van de Ven & Schut, 2008; Okma & Crivelli, 2013). The Swiss government ensures all citizens have coverage by automatically enrolling them with an insurer (Herzlinger, Richman and Boxer, 2017). Insurers are prohibited from selecting potential enrollees and are required to inform the public of their prices and provide standard coverage (Frank & Lamiraud, 2009; Herzlinger, Richman and Boxer, 2017). In addition, the Swiss government provides additional subsidies to insurers serving high-risk individuals (Frank & Lamiraud, 2009; Herzlinger, Richman and Boxer, 2017).

Another characteristic of private insurance, which advocates theorize is a strength, is its ability to respond efficiently to patients need as a result of market competition (Rosenthal & Newbrander, 1996). Competition as an informal regulation can also motivate insurers to improve customer service and efficiency, and pressure providers to minimize cost and offer quality healthcare (Williams, 1988; OECD, 1992; Banoob, 1994; Colombo & Tapay, 2004). However, it has been suggested that sustained competition among health insurers is difficult to accomplish—economies of scale encourage larger health insurance companies to monopolize the market, disabling smaller companies and thereby reducing competition (Hurley, 2001). It has also been suggested that competition is ineffective as a way to regulate the quality and cost of private health insurance markets, and does not compare to oversight and government regulation (Gottschalk, 2011; Geyman, 2015). Taking the example of the Netherlands and Switzerland, when these countries implemented insurance mandates, their health insurance markets became concentrated, thus reducing competition. (Okma & Crivelli, 2013). In the Netherlands, independent health insurance companies could not compete against bigger companies and faced decline (Maarse & Paulus, 2006).

Hurley (2001) provides three important arguments against the ability of privately financed health systems to support UHC. Under a privately financed health system, private insurance would be costly; it would not automatically ensure everyone in the population would have coverage and issues of underinsurance could exist; and controlling for cost sharing may not be possible. Competition among insurers is a weak form of regulation and extensive government engagement must also be present (Gottschalk, 2011). However, integrating the principles of UHC into a health system that largely depends on private funding sources is not impossible as proven by the Netherlands and Switzerland. It is emphasized by several scholars (Kutzin, 2001; Herzlinger & Parsa-Parsi, 2004; Okma & Crivelli, 2013), however, that government must play a major role in regulating private health insurance companies to meet the principles of UHC.

## **2.4 Empirical literature on the U.S. effort to expand healthcare access**

This section presents the U.S.'s experience of expanding health coverage and access to care through federal and state government reforms. It begins by presenting the reforms introduced by the federal government throughout several decades under different presidential administrations. It then presents the state of Massachusetts' effort to expand healthcare access to its population. This section provides empirical literature on the various ways the federal and state governments have played roles in expanding health coverage and access to the population. It provides an example of both government bodies' success and limited successes in meeting their proposed policy goals given the complexity of process of implementation.

### **2.4.1 Health care reforms at the federal level**

The U.S. government has a long history of spending a significant amount of its Gross Domestic Product (GDP) on its health care system (Bagley & Horwitz, 2011; McDonough, 2015). Annual spending on healthcare has continually

increased since the 1960s (Borger et al., 2006; Glassock, 2010). In 2003, it accounted for 15 percent of GDP, whereas other countries that are members of the Organisation for Economic Cooperation and Development (OECD) spent an average of 8.5 percent (Farrell et al., 2008; Manchikanti, 2008; Manchikanti & Hirsch, 2009). By 2008/09, the government dedicated 17 percent of the country's GDP to healthcare—nearly \$2.4 trillion (Keehan et al., 2008)—and this was projected to reach 20 percent (\$4 trillion) by 2015 (Glassock, 2010).

Despite large financial investment in the country's health system, this expenditure has not lead to all citizens having coverage and access to care, to significantly improved health outcomes, or to an efficient and effective healthcare delivery system (McDonough, 2015). Millions of people still remain without coverage, experiencing difficulty accessing required healthcare services (ACP, 2008). The 2000 census estimated that one sixth of the population was uninsured or had inadequate healthcare (Rashford, 2007). The Current Population Survey (CPS) in 2001 reported an estimated 39.7 million people were without health insurance coverage (DeNavas-Walt et al., 2006). In 2003 it was estimated 45 to 47 million people were without coverage (Rashford, 2007). Moreover, the number of people without health insurance was expected to increase to 54 million by 2019 (Cutler, 2010). The low-income, working poor—including part-time workers, seasonal workers, immigrants, and undocumented workers have been identified as the segment of the population that continues to be disproportionately uninsured (Rashford, 2007). Compared to native-born Americans, immigrants were also more likely to be without health insurance (Okie, 2007). Being uninsured puts these people at risk of delaying or avoiding accessing care due to the burden of the high cost of medical care (Schoen et al., 2010; Davis et al., 2014). It also puts them at risk of experiencing financial hardship when accessing healthcare services (White, 2015). For example, in 2003, 19 percent of nonelderly (18-64 years) households (50 million people) were spending more than 10 to 20 percent of their income on healthcare (Banthin & Bernard, 2006).

A number of presidents have tried to implement various forms of health reforms to address problems with health coverage and access to care. Over the



last few decades, some healthcare reforms have worked to incrementally extend coverage through a mixed-insurance system in which certain segments of the population are qualified to obtain coverage from publicly funded programs and others through private insurance. For example, in 1965, President Lyndon B. Johnson expanded the role of public finance in extending coverage to specific segments of the population through the development of the Medicare (Title XVIII) and Medicaid (Title XIX of the Social Security Act) (Smith, 2005; Gable, 2011).

The Medicare program was introduced to provide coverage to people aged 65 or older, people under age 65 with certain disabilities, and anyone with end-stage renal disease (White, 2012; Center for Medicare & Medicaid Services, 2017). The program provides comprehensive coverage, including hospital-related care, primary care and outpatient services, and prescription drugs (ACP, 2008).

The Medicaid program was developed as a jointly funded endeavor of the federal and state governments (Rice et al., 2014). It aims to provide health insurance coverage to low-income nonelderly adults not meeting the requirements of Medicare, and families that meet income and asset eligibility thresholds set by the federal government (Oberg & Polich, 1988). The state and federal government matched the funding, but the share of the federal government varies from 50 to 74 percent based on the per capita income of the state (Oberg & Polich, 1988; Crowley & Golden, 2014). Originally, the federal government set a minimal eligibility requirement for the program, including low-income families, qualified pregnant women and children, and individuals receiving supplemental security income (SSI) (low-income people at the age of 65 or older, blind or disabled) (Medicaid.gov, 2017). However, states were able to expand eligibility requirements to other segments of the population by covering the cost (Crowley & Golden, 2014; Medicaid.gov, 2017). For example, some states allowed low-income parents with income above 50 percent Federal Poverty Level (FPL) (up to a certain percentage of FPL) to be eligible for Medicaid, while other states only provided coverage to parents with incomes below 50 percent FPL (Shin et al., 2012a). The Medicaid program was not

originally designed to provide coverage to all low-income individuals, as non-elderly working and childless adults without disabilities were ineligible to be covered by the program (Wilensky & Rosenbaum, 2005). A limited proportion of immigrants were also eligible for the program after obtaining permanent residency by living in the country for five years (Okie, 2007).

Covered benefits of the program included basic primary healthcare services, but states could include additional services, causing the program to vary from state to state (See Table 2.1) (White, 2012). Some states were more generous, providing additional coverage such as vision or dental, while others only provided the mandatory services (White, 2012). An important element of the Medicaid program, particularly benefitting low-income populations was its limited, or non-existent, out-of-pocket expenses from cost sharing (White, 2012). Therefore, it minimized enrollees' risk of experiencing financial hardships when accessing care.

**Table 2.1: Covered benefits of the Medicaid program**

Mandatory benefits	Optional benefits
<ul style="list-style-type: none"> <li>• Certified paediatric and family nurse practitioner services</li> <li>• Early and Periodic Screening, Diagnostic, and Treatment Services</li> <li>• Family planning services</li> <li>• Federally Qualified Health Center services</li> <li>• Freestanding birth center services (when licensed or otherwise recognized by the state)</li> <li>• Inpatient hospital services</li> <li>• Laboratory and X-ray services</li> <li>• Nursing Facility Services</li> <li>• Nursing midwifery services</li> <li>• Outpatient hospital services</li> <li>• Physician services</li> <li>• Rural health clinic services</li> <li>• Transportation to medical care</li> <li>• Tobacco cessation counseling for pregnant women</li> </ul>	<ul style="list-style-type: none"> <li>• Case management</li> <li>• Chiropractic services</li> <li>• Clinic services</li> <li>• Community First choice option</li> <li>• Dental services</li> <li>• Dentures</li> <li>• Eyeglasses</li> <li>• Health homes for enrollees with chronic conditions</li> <li>• Hospice</li> <li>• Inpatient psychiatric services for individuals under age 21</li> <li>• Prescription drugs</li> <li>• Occupational therapy</li> <li>• Optometry services</li> <li>• Other diagnostic, screening, preventive and rehabilitative services</li> <li>• Other practitioner services</li> <li>• Other services approved by the Secretary of Health</li> <li>• Personal care</li> <li>• Podiatry services</li> <li>• Private duty nursing services</li> <li>• Prosthetics</li> <li>• Respiratory care services</li> <li>• Self-directed personal assistance services</li> <li>• Services for individuals age 65 or older in an Institution for Mental Disease (MID)</li> <li>• Services in an intermediate care facility for individuals with Intellectual Disability</li> <li>• Speech, hearing, and language disorder services</li> <li>• State Plan Home and Community Based Services</li> <li>• TB related services</li> </ul>

Source: Center for Medicare & Medicaid Services, 2017 List of Medicaid benefits

Successors of President Johnson, such as Richard Nixon, Jimmy Carter, and Bill Clinton, attempted to pass additional legislation to further expand coverage by expanding the role of private and public finance—though with limited success (McDonough, 2015). For example, President Nixon aimed to create a comprehensive health insurance plan that required all employers to offer full-time employees private insurance (Quadagno, 2005). Low-income and high-risk individuals would be able to obtain private health insurance from a newly established program called the Assisted Health Insurance Plan that was a partnership between the federal and state governments (Quadagno, 2005). While the Bush Sr. administration did not aim to introduce comprehensive health reform that would move the U.S. health system closer to UHC, their proposed policies aimed to further regulate private insurance, expand the role of government subsidies for low-income individuals to make coverage more affordable, and introduce an individual mandate (Quadagno, 2014). These proposed policies however were not enforced fully. President Clinton attempted to pursue some of the previous administration's proposals, and also extended the government's role in regulating private insurance and expanding publicly financed coverage. While he had limited success, President Clinton was able to increase the powers of the federal government to regulate private insurance through the passage of the Health Insurance Portability and Accountability Act of 1996 (HIPAA). This had previously been the responsibility of state governments under the McCarran-Ferguson Act of 1945 (Quadagno, 2014). To an extent, the Clinton administration was also able to expand the Medicaid program by enacting the State Children Health Insurance Program (SCHIP) in 1997, to cover more low-income children (Lambrew, 2007; Quadagno, 2014).

#### **2.4.2 Health care reforms at state level: the experience of Massachusetts**

While the U.S. federal government has introduced and been a part of implementing various health policies, state governments also play a critical role

in health policy development and implementation. States can develop policies that the federal government has not pursued; change or modify national policies to better suit the needs of the state; adopt (or oppose) a policy implemented by other states; and communicate or inform the federal government about issues or problems that can inform policy development (Oliver, 2006; Krane, 2007). Furthermore, states have been viewed as the government body that can effectively implement policies as they have the administrative capacity and expertise (Doonan, 2013). They also have broad legal authority and regulations relevant to the healthcare system fall within their jurisdiction (Kitman & Robins, 1991). Therefore, state governments are essential partners as implementers of national policy. Without their support, the federal government would find it extremely difficult to implement policies and reach their desired outcomes (Litman & Robins, 1991).

An example of the extent of state government's power in developing and implementing policy is Massachusetts's Chapter 58 reform implemented in 2006, which aimed to expand coverage in the state and improve its health system. Massachusetts's 'Chapter 58 of the Acts of 2006' expanded access to health insurance through market-based reforms (Brandon & Carnes, 2014) and achieved near UHC (Janett, 2013). This was accomplished by increasing the role of both public and private funding sources, and reduced the uninsured population from an estimated 657,000 to around 396,000 (McDonough et al., 2006). Low-income populations were eligible for coverage from MassHealth (the state Medicaid program) and residents with incomes at or below 300 percent FPL were eligible to receive subsidies to purchase private insurance from the newly established health exchanges (McDonough et al., 2008; Nardin et al., 2011). Businesses with more than ten employees were required to offer staff health insurance and pay a "fair share contribution" for the cost of the premium (Janett, 2013; Brandon & Carnes, 2014). The reform introduced additional state government oversight and regulations on private insurers to reduce risk selection. Insurers were prohibited from refusing people with pre-existing conditions or charging different premium rates to different age groups (Janett, 2013). In addition, the reform mandated that all legal residents

purchase health insurance, as long as it was affordable (Smuowitz et al 2009; Savageau et al., 2011; Janett, 2013).

The implementation of Chapter 58 caused the number of uninsured to decline in the state from 9.8 percent in 2006 to three to five percent in 2009 (Larkin, 2009; Doonan & Tull, 2010). The number of uninsured non-elderly adults (individuals aged 18-65) also decreased between four and seven percent between 2008 and 2009 (Long & Stockley, 2010; Nardin et al., 2011). Long & Stockley (2010) and Maxwell et al. (2011) reported that in 2008, an impressive 96 percent of residents had health insurance and every racial and ethnic group experienced gains in coverage. By 2012, it was estimated that 98.2 percent of the population had health insurance coverage including 99.8 percent of children (Massachusetts Department of Revenue, 2009). While near UHC was achieved in the state by expanding health insurance funded by both private and public sources, segments of the population continued to remain uncovered. People with insurance also faced the risk of losing coverage as a result of becoming unemployed, transitioning into a different job, aging out of parent's health insurance plan, unaffordability, automatic cancellation without notice, or through lapsed paperwork (Nardin et al., 2011). Undocumented immigrants in the state were not covered by the reform and did not have options for financial assistance to make health insurance more affordable (Ku et al., 2009) and they remained the largest category of uninsured people in the state (Hall, 2011).

The state reform had mixed results in respect of improving access to care and reducing the risk of financial hardship when accessing care. Studies have found that access to care improved during the first year, as newly insured individuals could obtain a regular source of healthcare from a provider, enabling them to access preventative and dental care services (Larkin 2009; Long & Masi, 2009). However, Maxwell et al., (2011) found the reform did not completely improve access to care, particularly among low-income populations with Medicaid, as they struggled to find providers willing to accept them as new patients, given their insurance type. Moreover, some newly insured patients with private insurance experienced financial hardship when accessing care, as they struggled to afford the out-of-pocket expenses arising from cost sharing

(Nardin et al. 2011). In addition, some individuals with private insurance were found to access health care services reluctantly due to high co-payment and medication fees (Maxwell, 2011).

This section presented attempts from several presidents from different decades, and the recent attempt of the state of Massachusetts, to expand coverage and improve access to care by implementing nationwide and statewide policies. All these policies aimed to expand coverage. However, the implementation process in both the national and state settings caused certain outcomes that contributed to the policies having varied success in achieving their original intent. Factors that may have contributed to this are the multi-governance set up in the U.S. and the multiple stakeholders from institutions and organisations that can influence the implementation process. The U.S. government cannot simply pass a national policy with one vision and expect that all state governments to implement it, as exemplified by the Medicaid program. It must negotiate and work with state governments (Litman and Robins, 1991). Therefore, the original intent of the federal government could be modified by state governments to better meet their needs.

However, the challenge with policy implementation is not limited to shared federal and state governance, as shown by Massachusetts' experience of implementing the Chapter 58 state policy. While the state was able to expand coverage to many of its residents, it continued to have populations that remained uninsured. There were also issues with access to care due to providers not accepting certain insurance types or newly insured patients could not afford associated share of cost with their insurance plan. The state government did not have full control of implementing the policy and actions taken by stakeholders (e.g., health insurance companies, healthcare providers) also caused a divergence from the original intent.

While the U.S. has yet to achieve near universal coverage for its population, the federal and state governments have introduced various policies in the past that helped move the health system towards it. However, implementing those policies has proven difficulties given various complicating factors that cause unintended outcomes to occur. For example, decisions and

actions made by implementers can easily derail the policy during any period of the implementation process. It is important to note that their decisions and actions may be influenced by various political and societal factors, and available resources (Meter et al., 1975; van Eyk, 2001). During different stages of the implementation process, implementers must also respond to previous decisions and actions made by others. Therefore, it is insightful to gain the perspective of different actors that are part of the implementation process to better understand the extent to which a policy's goals might be met. The following section will further discuss the theoretical literature on policy implementation.

## **2.5 Theoretical literature on policy implementation**

According to Pressman & Wildavsky (1973), "implementation may be viewed as a process of interaction between the setting of goals and actions geared to achieving them" (p. xy). Other scholars (Mazanian & Sabieter, 1983; Lester et al., 1995) similarly describe policy implementation as a process of taking action on decisions and the intent of the government (or certain parts of the government) to cause an outcome. A very simplistic view of policy implementation might characterize this as a linear process that starts when "x and y" is implemented at one point in time, which then results in "z" at a later time (Lipsky & Robbins, 1991). However, many scholars have noted that policy implementation is not necessarily a linear process, and that outcomes may vary due to multiple factors that may influence the process (Pressman & Wildavsky, 1973; Lipsky & Robbins, 1991; Khan & Khandaker, 2016).

The work of Pressman & Wildavsky (1973) is particularly relevant to further understanding why policy implementation can be complex and less straightforward. Their investigation of the implementation process of a federal program that aimed to increase employment opportunities to low-income minority populations in Oakland, California, highlighted the various factors that can cause implementation to go awry and contribute to the failure of the policy to meet its goals. One of their significant findings suggests, "simplicity in policies is much to be desired" (p.147, Pressman & Wildavsky, 1973). They



believe the more concise a policy's aims, in respect of reaching its target, the simpler the steps required to meet these aims. Minimizing the amount of decisions made during the process can increase the likelihood the implementation of the policy can be realized (Pressman & Wildavsky, 1973).

While simplicity in policy implementation may be much desired, in practice this is often not achievable. A factor that contributes to the complexity of policy implementation, identified by many scholars (O'toole & Montjoy, 1984; Hall & O'toole, 2000; Oliver, 2006; Doonan, 2013), is the involvement of multiple stakeholders particularly in a multi-government set-up. While the central government has been viewed as an important stakeholder, its role has been debated. Some scholars (Milward, 1996) claim the central state has stepped away from the implementation process, causing it to depend largely on a network of stakeholders to conduct the process by providing them basic criteria and parameters (Hall & O'toole, 2000; Bavir & Waring, 2018). Other scholars (Exworthy, Powell and Mohan, 1999; Skelcher, 2000) counter this theory and claim that the central state continues to have an important role in the process beyond merely setting broad parameters and guidance (Bavir & Waring, 2018). In the case of the multi-government set up of the U.S., the latter can be observed as the federal government continues to play various roles during implementation and continues to manage programs such as the healthcare care program for the Department of Veterans Affairs (U.S. Department of Veterans Affairs, 2018). Nevertheless, the federal government continues to work with, and depend on, different government bodies (e.g., state and local government) and a network of government and nongovernment institutions and organizations (Hall & O'Toole, 2000, Oliver, 2006) to implement national policies. For example, the federal government must depend on state governments to implement policies, as they have jurisdiction over their region (Litman & Robbins, 1991; Doonan, 2013). State governments have the capacity, expertise, and resources allowing them to better drive the implementation process (Litman & Robbins, 1991; Nathan, 2005; Krane, 2007; Doonan, 2013). The federal government can encourage state governments to implement certain policies to address issues affecting the nation by giving them

financial support (Litman & Robins, 1991). However, the federal government has limited capacity to force state governments to enact federal policies they do not support or that contradict their agenda (Litman & Robins, 1991). The federal government must work collaboratively and provide room for flexibility in order to gain support from state governments to implement federal policy (Doonan, 2013). This symbiotic relationship between the federal and the 50 state governments has made it challenging for the U.S. government to have a seamless national healthcare policy, as it cannot “expect Texas to follow the same rules as Rhode Island” (p. 44, Doonan, 2013).

In further considering the complexity of implementing policy in a multi-governance set up, it is also important to consider the roles of stakeholders at the local level. According to Weatherley & Lipsky (1977), policy may constantly change as a result of implementation. As there are many different levels of actors who are part of the process, decisions made by actor A at a certain time may cause various actions to be made by actor B at another time (McLoughlin, 1987). Local-level stakeholders that are part of policy implementation may be just as important as government officials from the national, state and local level, as their decisions and actions can influence the reach of the policy to the target population and influence the intended outcomes. Matland (1995) also posits that policy coming from the central government may be poorly designed for local settings. Therefore, the success of implementing policy and meeting the intended outcomes may be determined by local-level stakeholders’ interpretation and actions to adapt it in a way that suits their local setting. This theory is further supported by other scholars who also believe actors in the local level that deliver services to the public are part of implementing government policies and programs that can influence the intended outcomes (Cerna, 2013).

A specific type of local-level stakeholder that is considered to be part of and can influence the implementation process is the ‘street-level bureaucrat’ (SLB), as introduced by the scholar Lipsky (Paudel, 2009; Lipsky, 2010; Gale et al., 2017). Examples of SLBs are teachers, law enforcement personnel, social workers, and healthcare workers (Lipsky, 2010). These actors have a unique

role in having the responsibility to enact policies through programs and initiatives by delivering services directly to the population (Lipsky, 1980; Gofen, 2013). Their position in the implementation process—at the “end of the line”—can potentially influence how policy is delivered (McLoughlin, 1987). For example, their decisions on how service is delivered, routines established during the delivery of the service, and the methods they develop to cope with challenges in uncertain situations can influence the implementation process of the policy and its outcome (Lipsky, 1980; Paudel, 2009). According to some scholars (Halbesleben et al., 2010; Robbins and Galperin, 2010) policies that can disrupt SLBs delivering services and/or their daily routine may also cause these stakeholders to find ways to ‘workaround’ it and can cause unintended outcomes (Gale, et al., 2017). Some scholars (Lipsky 1980; Handler, 1986; Meyers & Virsanger, 2003) posited that SLBs also have a level of discretionary powers, “hard power”, and autonomy that allows them to interpret the policy and can potentially diverge from it during delivery of services (Gofen, 2013). This is possible due to policy being articulated in a broad and potentially ambiguous term, which leaves room for interpretation (Oliver, 2006; Lipsky, 2010; Keiser, 2010). The amount of discretionary power and autonomy of SLBs that can impact policy, however, is highly controversial and debated (Matland, 1995).

Building on this work, the concept of street-level diplomats (SLDs) was introduced by Gale et al. (2017). SLDs are also seen to be capable of influencing the implementation process. However, according to several scholars, (Bourdieu, 1977; Fligstein & McAdam, 2011) unlike SLBs, SLDs depend on their “soft power” rather than “hard power” to influence the way policy is implemented in their setting (Gale et al., 2017). This concept is particularly interesting, especially when noting the difference with street-level bureaucrats’ methods of influencing policy implementation. Nevertheless, SLDs are also stakeholders that should be considered when understanding how local actors influence implementation and can cause changes to policy to better fit their settings.

Theories of street-level bureaucracy and diplomacy are of relevance to this study as local stakeholders are intimately involved in the implementation

process—which is highly complex, leaving abundant room for ambiguity and interpretation. It is debatable whether or not these local-level stakeholders have autonomy and the extent to which they impact policy throughout the implementation process (Matland, 1995). However, various scholars have shown the important role of these stakeholders during the implementation process. In respect of this study, understanding the perspectives of local-level stakeholders, such as FQHC administrators, provides the opportunity to better understand the implementation process of the ACA and its impact on health care providers such as Federally Qualified Health Centers.

This section discussed some of the factors that can cause policy implementation to be a complex process and, to an extent, unpredictable particularly when it occurs in practice. Many actors and factors can influence policy outcomes during different points of the process (Pressman & Wildavsky, 1973; Matland, 1995; Oliver, 2006, Khan & Khandaker, 2016). The following sections will focus on presenting the analysis of literature on the complex implementation process of the Affordable Care Act and its impact on FQHCs as this provides information relevant to conducting this study. Section 2.6 begins by providing a review of the Affordable Care Act with a focus on provisions that would specifically affect Federally Qualified Health Centers and their patients. It is then followed by section 2.7, which provides an analysis of literature regarding the anticipated impact of the ACA on coverage expansion in the nation and on FQHCs. The section continues to section 2.8 by providing the analysis from limited set of literature on the actual impact of the ACA in coverage expansion and on FQHCs in practice.

## **2.6 Review of the Affordable Care Act (ACA)**

As discussed in section 2.4, previous federal administrations and the state government of Massachusetts attempted to expand coverage and improve access to care by introducing reforms within a mixed-insurance system. And while most countries have extended coverage and moved towards UHC by depending largely on public funds (Colombo & Tapay, 2004), the U.S. federal

government continues to attempt to expand coverage through the reliance of its mixed-insurance system (Kominski, Nonzee and Sorensen, 2017). President Obama implemented further national healthcare reform with the Patient Protection and Affordable Care Act (ACA) in 2010. Obama's strategy was to introduce comprehensive reform within the current mixed-insurance system, similar to the healthcare changes enacted in the state of Massachusetts in 2006 (Kominski, Nonzee and Sorensen, 2017). This section provides a brief overview of the key elements of the ACA affecting FQHCs in respect of expanding coverage and the distribution of enhanced federal funding.

The U.S. enacted the ACA into law in March 2010. Its goal was to introduce extensive reforms to the existing health insurance system, expanding coverage and the delivery of care system to improve access, efficiency, quality, and health outcomes (Patient Protection and Affordable Care Act, 2010; Rice et al., 2014; McDonough, 2015). The ACA's overall objectives supported the goals of the United Nation's General Assembly Resolution and Sustainable Development Goals (SDGs), as it attempted to expand coverage and included mechanisms enabling the current health system to move towards achieving UHC (Rice et al., 2014). Table 2.2 lists the Act's 10 key provisions designed to improve the health insurance and delivery of care system of the U.S.

**Table 2.2: Provisions of the Affordable Care Act**

<b>Title</b>	<b>Description</b>
I	<b>Quality, Affordable Health Care for all Americans:</b> Provisions that describes the expansion of coverage through private insurance for individuals and families with income level falling in mid and lower-mid range.
II	<b>Role of Public Programs:</b> Provisions that describe expansion of coverage to low-income people through the federal and state funded Medicaid program.
III	<b>Improving the Quality and Efficiency of Health Care:</b> Provision that describes the effort of the policy to improve quality, efficiency. And effectiveness of healthcare services. It also includes provisions that introduce changes to the Medicare program, which provides coverage to elderly and disabled populations.
IV	<b>Prevention of Chronic Disease and Improving Public Health:</b> Provisions that describes the effort to improve prevention and public health.
V	<b>Health Care Workforce:</b> Provisions that describes the effort to expand and strengthen healthcare workforce.
VI	<b>Transparency and Program Integrity:</b> Provision that describes the effort to improve the transparency and accountability of the healthcare system. It also introduces methods of strengthening the system through evidence-based research.
VII	<b>Improving Access to Innovative Medical Therapies:</b> Provisions that describes regulation related to biopharmaceutical products.
VIII	<b>Class Act:</b> Provisions that describes ways in which programs serving temporary or permanent disabled Americans are funded.
IX	<b>Revenue Provisions:</b> Provisions that describes the ways in which the ACA would be financed.
X	<b>Strengthening Quality, Affordable Health Care for All Americans:</b> Describe additional provisions and revisions that support the nine titles.

Source: Patient Protection and Affordable Care Act, 2010; McDonough, 2015

One of the main goals of the reform was to expand health insurance coverage to millions of uninsured citizens and legal residents (Manchikanti et al., 2011; Abraham, 2014). This required the federal government to work with, and depend on, multiple government agencies, state government and the industry such as health insurance companies, and healthcare providers. The ACA attempted this by adopting mechanisms similar to those used in the Massachusetts Chapter 58 healthcare reform: it expanded coverage through the

enactment of an individual mandate; through expansion of the publicly funded Medicaid program; and the establishment of a 'marketplace' that offered private insurance plans with additional regulations set by the federal government (Manchikanti et al., 2011; Rice et al., 2014; McDonough, 2015). The individual mandate required all citizens and documented immigrants to have health insurance, or be subjected to a financial penalty (Cutler, 2010; Auerbach et al., 2011; Rice et al., 2014). This penalty was applied in the form of an additional tax requiring uninsured individuals to pay \$695 or 2.5 percent of their income; whichever is highest (Manchikanti et al., 2011; Rice et al., 2014). The mandate applied to most people, but the ACA exempted those claiming financial hardship, those uninsured for three months or less, American Indians, and prisoners (Bredesen, 2010).

In order for low-income uninsured populations to obtain health insurance, the ACA expanded the federal- and state-funded Medicaid program to cover all nonelderly American citizens and immigrants with incomes below 138 percent of FPL (Ku et al., 2010; Taylor, 2012; Rice et al., 2014; Haeder & Weimer, 2015). Individuals with incomes below \$15,800, or families of four with incomes below \$32,300 (FPL level during 2014) would be eligible Medicaid coverage from January 2014, when the expansion took effect (Manchikanti et al., 2011). Individuals with higher incomes falling between 139 percent to 400 percent of FPL that were unable to gain health insurance from their employer were eligible to receive subsidies from the federal government to purchase private insurance from the newly established 'marketplace' also known as the Health Exchange (Lavarreda, Brown and Bolduc, 2011; Duderstadt, 2013; White 2013; Abraham, 2014). These insurance plans included additional regulation set by the federal government and were categorized based on the percentage of cost covered by the participating insurer (Manchikanti et al., 2011). The most affordable health insurance plan in the exchange was labeled the "Bronze plan" and insurers were expected to cover 60 percent of the healthcare cost of the enrollee (Manchikanti et al., 2011; White, 2012). The "Silver plan" covered 70 percent of the health care cost, the "Gold plan" covered 80 percent of the health care cost, and the "Platinum plan" covered 90 percent of the total health care

cost (Manchikanti et al., 2011; White, 2012). Individuals under the age of 30 were able to purchase a “Catastrophic” plan, which offered lower premiums but much higher cost sharing compared to other plans (White, 2012). The government provided subsidies to ensure affordability by lowering the cost of the monthly premium. Additional subsidies were given to people selecting the “Silver” plan with incomes below 250 percent FPL, to reduce the cost of out-of-pocket expenses (Manchikanti et al., 2011; Abraham, 2014; Shin et al., 2015).

In respect of coverage benefits, all health insurance plans were required to include certain preventative and rehabilitative treatments termed ‘essential benefits’ (Gable, 2011; Rice et al., 2014). These are listed in Table 2.3. Plans had to include preventative and basic primary care services, reflecting the coverage offered by employer-sponsored insurance plans (Rosenbaum, 2011). The covered benefits of Medicaid remained largely the same as it already included essential benefits, but states were able to add on other services by covering the expenses (Rosenbaum et al., 2010).

**Table 2.3: Ten essential benefits included in private insurance plans part of the ACA marketplace**

Essential benefits
<ol style="list-style-type: none"> <li>1. Ambulatory patient services</li> <li>2. Emergency services</li> <li>3. Hospitalization</li> <li>4. Maternity and neonatal care</li> <li>5. Mental health and substance-use disorder services including behavioral health treatments such as counseling and psychotherapy</li> <li>6. Prescription drugs</li> <li>7. Rehabilitative services and devices</li> <li>8. Laboratory services</li> <li>9. Preventative and wellness services, including chronic disease management</li> <li>10. Paediatric services</li> </ol>

Source: Rice et al., 2014

An additional provision of the ACA that would impact FQHCs was the establishment of the Community Health Center Trust Fund, as it increased federal funding available to FQHCs (Hawkins & Groves, 2011). This enhanced



funding would distribute a total of \$11 billion for 5 years starting in fiscal year (FY) 2011 and ending in FY 2015 in order to support FQHCs' capacity growth (Patient Protection and Affordable Care Act, 2010; Hawkins & Groves, 2011; Taylor, 2012). \$1.5 billion of the \$11 billion was dedicated to capital funds, intended to help existing FQHCs expand their physical capacity and/or open new locations (Hennessy, 2013). It was expected that the remaining \$9.5 billion would support the expansion of resources in order to increase FQHCs' capacity and improve operations (Hennessy, 2013). The funding aimed to help existing and newly established FQHCs expand working hours for services and offer broader health care services, such as mental and dental health, and pharmacy services (Rosenbaum et al., 2010).

## **2.7 Anticipated impact of the ACA on coverage expansion in the U.S.**

One of the main aims of the Affordable Care Act was to expand health insurance coverage to the underinsured and uninsured population in the U.S. (Kirch, Henderson and Dill, 2012; Abraham, 2014). Coverage expansion would be achieved primarily by enforcing an individual mandate that required people to obtain health insurance (Auerbach et al., 2011; Buettgens & Hall, 2011; Blumenthal & Collins, 2014), and by expanding public and private health insurance (Hawkins & Groves, 2011; Hofer, Abraham and Moscovice, 2011; Abraham, 2014; Garfield et al., 2015). Table 2.4 shows multiple national estimates of the number of people gaining health insurance under the ACA, according to which millions of Americans would gain coverage as the implementation of the reform progressed. An analysis of the national data from Gallup Poll enabled Krueger & Kuziemko, (2013) to estimate that 33 to 35 million people would gain coverage by 2016. According to the Congressional Budget Office (CBO), an estimated 32 million people would have health insurance by 2022 (Block et al., 2014) and this would increase to an estimated 38 million people by 2024 (Robert & Gaskin, 2015).

**Table 2.4: National estimates of people gaining coverage under the ACA**

<b>Estimates of people gaining health insurance coverage</b>	<b>Source</b>
25 million Americans in 2014	Congressional Budget Office, (2013); Abraham, (2014)
Between 33-35 million people by 2016	Krueger & Kuziemko, (2013)
32 million people by 2019	Duderstadt (2013)
32 million by 2022	Block et al., (2014)
34 million people (general estimate)	Petterson et al. (2012)
37 million people by 2023	Abraham (2014)
38 million people by 2024	Robert & Gaskin (2015)

Estimates were given for the number of people in the U.S. gaining specific health insurance types under the ACA were expected to vary. Table 2.5 shows a range of national estimates of people gaining health insurance coverage from Medicaid and private insurance. According to the Congressional Budget Office, 13 million people would gain coverage from Medicaid (Abraham, 2014; Roberts & Gaskin, 2015). Other studies (Sommers et al. 2012; Ku et al., 2010; Hawkins & Groves (2011) estimated that 16 million people would gain coverage from Medicaid. Estimates expected that more uninsured people would gain coverage from private insurance than from Medicaid.

An estimated 24 to 25 million people with low and moderate income (138 to 400 percent FPL) were expected to gain coverage from private health insurance from the newly established marketplace also known as Health Exchanges (Abraham, 2014; Robert & Gaskin, 2015).

**Table 2.5: National estimates of people gaining coverage with specific insurance types under the ACA**

<b>Insurance Types</b>	<b>Source</b>
<b>Estimates of people gaining Medicaid</b>	
13 million people	Abraham (2014); Roberts & Gaskin (2015)
14.6 million	Hawkins & Groves (2011)
16 million people	Sommers et al. (2012); Ku et al., (2010); Hawkins & Groves (2011)
16 to 18 million people	Hammer, Phillips, and Schmidt (2010)
<b>Estimates of people gaining private insurance from Health Exchange</b>	
24-25 million people	Abraham (2014); Robert & Gaskin (2015)
25 million people	Hawkins & Groves (2011)

While coverage expansion was expected to enable millions of people to gain health insurance, it was expected that a segment of the population would continue to be uninsured under the ACA (Buettgens & Hall, 2011; Ku et al., 2014). According to an estimate reported by Hawkins & Groves (2011), 23 million people would remain without coverage. The Congressional Budget Office (CBO) in 2010 estimated that 23 to 26 million Americans were expected to remain uninsured (Clemans-Cope et al, 2012). The largest population expected to remain without coverage was low-income nonelderly adults (Clemans- Cope et al., 2012; Angier et al., 2015). Buettgens & Halls (2011) estimated that 51.2 percent of low-income adults (incomes below 138 percent FPL) would remain uninsured. By comparison, 34.3 percent of non-elderly adults with low to moderate incomes (incomes between 138 to 400 percent FPL) would remain uninsured and 13.8 percent of non-elderly adults with higher incomes (incomes above 400 percent FPL) would remain uninsured (Buettgens & Hall, 2011). An estimated 4.2 million low-income undocumented immigrants in the U.S. were expected to remain without coverage, as they are ineligible to participate in any federal programs (Clemans-Cope et al., 2012; Abraham, 2014).

### **2.7.1 Anticipated impact of the ACA on FQHCs' patient coverage and demand**

The aim of the following sections is to present the analysis of the literature from peer-reviewed and grey literature regarding the anticipated implementation of the ACA and its impact on FQHCs. These sections highlight the implementation of the policy based on the original design and the anticipated impact on these providers.

The implementation of the coverage expansion was expected to cause FQHCs to serve more patients newly insured under Medicaid (Sommers et al., 2012; Hennessey, 2013). National estimate suggest that the proportion of Medicaid patients served by FQHCs would change from 35.8 percent in 2009 to 43.9 percent in 2019 as a result of the ACA (Ku et al., 2010). Hawkins & Groves (2011) also estimated the proportion of FQHC patients with Medicaid would increase from 34 percent to 45 percent. In respect of private insurance, FQHCs were not expected to experience a significant increase of serving newly insured patients with the coverage type. In fact, estimates of Ku et al. (2010) suggest the proportion of FQHCs' patients with private insurance was expected to decrease from 15.6 percent in 2009 to 13.7 percent in 2019. FQHCs were also expected to experience a decrease in serving uninsured patients under the ACA (Hawkins & Groves, 2011). Ku et al. (2010) estimated that in 2009 the proportion of uninsured patients was 38.3 percent and this was expected to decrease to 22 percent in 2019. While FQHCs would experience a reduction in serving uninsured patients over time under the ACA, they were expected to remain an important source of primary care for the low-income uninsured population, as they would continue to disproportionately serve them compared to other healthcare providers (Ku et al., 2010; Rosenbaum et al., 2010; Clemans-Cope et al., 2012). These anticipated impacts of coverage expansion on FQHCs were influenced by the experiences of FQHCs in Massachusetts after the state expanded coverage through its Chapter 58 policy. After the state policy was enacted, FQHCs in Massachusetts experienced a decline in serving uninsured patients from 35.5 percent to 19.9 percent, given gains in coverage from

Medicaid (MassHealth) or private insurance under the Chapter 58 state reform (Ku et al., 2011).

One factor explaining why FQHCs were expected to gain more Medicaid patients under the ACA was that non-FQHC primary care providers (e.g. private clinics and private hospitals) would be less likely to accept them (Sommers et al., 2011; Hennessy, 2013; Rhodes et al., 2014). This was experienced by FQHCs in Massachusetts during the expansion of coverage under their Chapter 58 state healthcare reform. Ku et al. (2009) and Ku et al. (2011) found that FQHCs became an even more important source of healthcare for newly insured Medicaid patients, as some primary care providers did not accept new patients covered by it. This prediction was also based on a number of studies conducted prior to the implementation of the ACA's coverage expansion in 2014. For example, Sommers, Paradise and Miller's (2011) analysis of the 2008 nationally representative survey of physicians from the "Center for Studying Health System Change (HSC) Health Tracking Physician Survey," found Medicaid patients had varying degrees of success in establishing care with four different types of primary care providers (PCPs). Table 2.6 shows the different type of PCPs (High Share Medicaid PCPs, Moderate Medicaid Share PCPs, High Share Medicare PCPs, and Low and No Share Medicaid PCPs) and the proportion of Medicaid patients accepted. High Share Medicaid PCPs (such as FQHCs) were found to be more likely to accept patients with Medicaid than Low and No Share Medicaid PCPs (such as private hospitals or clinics) (Sommers, Paradise and Miller, 2011).

**Table 2.6: Primary care providers' (PCP) acceptance rate of Medicaid patients**

Type of PCPs	Examples of PCP	% of PCPs practicing in the U.S	% of revenue from Medicaid/Medicare	Acceptance rates of Medicaid patients (%)
High Share Medicaid PCPs	Hospital-based practices and Federally Qualified Health Centers (FQHCs)	18.5	26% or more of their revenue comes from Medicaid	83.6
Moderate Medicaid Share PCPs	PCPs work in small or middle size group practice and group/ staff Health Maintenance Organizations (HMOs)	29.1	6-25% of their revenue comes from Medicaid	68.4
High Share Medicare PCPs	Usually providers working alone or a two physician practice	19	26% or more of their revenue comes from Medicare	20.1
Low and No Share Medicaid PCPs	Private hospitals or clinics	33.4	PCPs not meeting the criteria	19.6

Source: Sommers, Paradise and Miller (2011) analysis of 2008 Center for Studying Health System Change (HSC) Health Tracking Physician Survey

A second study by Decker (2012) analyzed data from the National Ambulatory Medical Care Survey Electronic Medical Records Supplement (2011) found that 96.1 percent of office-based physicians (non-FQHC provider) accepted new patients in 2011. However, only 69.4 percent of office-based physicians were found to have accepted new Medicaid patients and were more likely to accept new patients with Medicare (public insurance for the elderly),

private insurance, or self-payers (Decker, 2012). Decker's (2012) findings imply that FQHCs will be an important primary care provider for newly insured Medicaid patients, as they accept new patients regardless of their insurance type.

A third study by Rhodes et al. (2014) also found that FQHCs would likely gain more newly insured Medicaid patients after the enactment of the ACA. Rhodes et al. (2014) conducted a simulated study from November 2012 to April 2013 that investigated the ability of non-elderly patients with private health, Medicaid, or no insurance, to obtain the first available appointment for a routine check-up or urgent care with primary care providers in 10 states (Arkansas, Georgia, Illinois, Iowa, Massachusetts, Montana, New Jersey, Oregon, Pennsylvania, Texas). They found that 84.7 percent of people with private insurance and 78.8 percent of uninsured self-payer patients were able to secure appointments with a primary care provider (Rhodes, et al., 2014). By comparison, 57.9 percent of people with Medicaid were able to obtain appointments with a primary care provider (Rhodes et al., 2014).

According to multiple studies, one of the main reasons not all primary care providers accept patients with Medicaid is the low payments they receive from the program (Cunningham & Nichols, 2005; Hall, 2011b; Price & Eibner, 2013; Abraham et al., 2014; Crowley & Golden, 2014). Primary care providers in different states receive different levels of payment rates from Medicaid based on their contract (Hurley, Felland and Lauer, 2007; Katz et al., 2011; Decker, 2012). FQHCs tend to receive higher payment rates from Medicaid compared to private primary care providers as they are able to establish a predetermined rate with the federal agency, Center of Medicare and Medicaid Services (CMS) (Taylor, 2012; Shin, Alvarez and Rosenbaum, 2013). These predetermined rates are based on local rates for health services taking into account annual medical inflation and the cost to FQHCs for providing the service (Heisler, 2016). Other primary care providers (private clinics and private hospitals) receive different payment rates based on the fee schedule of their state's Medicaid program. These tend to be lower than the rates FQHCs receive (Zuckerman, Williams and Stockley, 2009; Taylor, 2012).

Due to the increased proportion of people gaining coverage from the ACA, it was expected to cause an increase in demand for care (Hennessey, 2013; Robert & Gaskin, 2015). Abraham (2014) estimated the increase in demand for care in the U.S. would be in the range of 33 to 149 million visits per year to office-based care providers. Hofer et al., (2011) estimated an additional 15.07 to 24.26 million primary care visits would be made under the ACA.

Demand for care among FQHCs was also expected to increase (Hennessey, 2013) as these providers were expected to serve more patients with coverage seeking care. This prediction was supported by findings from several studies (Long, Stockley and Dahlen, 2012; Miller, 2012) that suggested FQHCs in Massachusetts experienced an increase in demand for care after the state expanded coverage under Chapter 58. Long, Stockley and Dahlen (2012) found during the first year of Massachusetts' reform that the probability of individuals making general doctor visits during the year was 79.5 percent. This was found to increase to 85.2 percent in 2009 (Long, Stockley and Dahlen, 2012). Miller (2012) also supported this claim finding that demand for care increased in Massachusetts as the probability of individuals making office visits after the reform increased by 3 percentage points.

### **2.7.2 Anticipated impact of the ACA on FQHCs' revenue and capacity**

According to several scholars (Rosenbaum et al., 2010; Hawkins & Groves, 2011; Katz et al., 2011) a second mechanism of the ACA that would impact FQHCs was the distribution of enhanced federal funding under the newly established Community Health Center Trust Fund. As a result, it would cause an increase in available grant funding to FQHCs, which was expected to improve their overall revenue.

This enhanced federal funding was expected to enable FQHCs to invest in additional resources and increase their capacity—meaning they can serve more patients and provide more services (Hennessey, 2013). \$1.5 billion was dedicated for capital projects that could expand current space, increase the



number of new FQHCs and/or satellite clinics in medically underserved communities (Ku et al., 2010; Rosenbaum et al., 2010; Money, 2013). The remaining \$9.5 billion would assist with the improvement of FQHCs' operations by enabling them to renovate and upgrade their information technology (IT) systems (Rosenbaum et al., 2010). In addition, FQHCs would be able to broaden their range of services and either extends or introduces new services in mental health, dental health, pharmacy, and increase working hours (Rosenbaum et al., 2010).

The combination of increased patient revenue and enhanced federal grant funding was expected to increase FQHCs' capacities. Hawkins & Groves (2011) predicted the additional funding would enable FQHCs to serve an additional 20 million patients. Shin et al. (2013) estimated that FQHCs would be able to serve 40 million patients by 2019 while Rosenbaum et al., (2010) estimated they would serve 44 million patients by 2015 and 50 million by 2019.

### **2.7.3 Anticipated challenges and opportunities with expanding capacity**

While the federal government strengthened its support and commitment to the growth of FQHCs, these providers were still expected to face challenges affecting their ability to expand (Rosenbaum et al. 2010; Hawkins & Groves, 2011). For example, the federal government's enhanced funding to FQHCs included a \$1.5 billion allocation for capital grants to support physical expansion (Rosenbaum et al., 2010; Hennessy, 2013). However, according to the National Association of Community Health Centers (NACHC) (2008), FQHCs would still need a further \$10.5 billion to upgrade and expand their facilities (Hawkins & Groves, 2011). Another barrier to capacity expansion was the existing workforce shortage (Rosenbaum et al., 2010). It was expected the expansion of coverage enabling millions of uninsured patients to gain insurance would cause many primary care providers across the country to hire more staff (Colwill et al., 2008; Hofer et al., 2011; Petterson et al., 2012). As a result, many primary care providers (PCPs) including FQHCs were expected to compete for a

limited pool of healthcare providers (Katz et al., 2011). FQHCs were expected to face difficulties when competing with other PCPs, particularly private and private hospitals, in respect of hiring more clinical providers, given their limited budget and inability to offer higher salaries (Katz et al., 2011).

While the enhanced federal funding was expected to increase FQHCs' capacities, many studies acknowledged the main financial source for long-term growth was the expansion of health insurance coverage (Rosenbaum et al., 2010; Hawkins & Groves, 2011; Hennessy, 2013). The revenue sources of FQHCs have shifted increasingly from federal grants to patient revenues (Shin et al., 2012b). For example, in 1985, federal grants accounted for 51 percent and patient revenue accounted for 20 percent of FQHCs' total revenue (Shin et al., 2012b). By 2010, federal grants had decreased and accounted for 23 percent of revenue, while patient revenue accounted for 51 percent of total revenue (Shin et al., 2012b; Shin et al., 2014).

Furthermore, several authors have noted that Medicaid has become an increasingly important revenue stream for FQHCs as it has come to account for a large proportion of their patient revenue (Hawkins & Groves, 2011; Shin et al., 2012b; Shin et al., 2014). Medicaid revenue accounted for 15 percent of FQHCs' total patient revenue in 1985; this increased to 38 percent in 2010 (Shin et al., 2012b). The expansion of Medicaid under the ACA was therefore expected to present a major opportunity for these providers, as they would be able to gain more patients with the coverage and as a result increase their revenue (Hawkins & Groves, 2011). The expansion would also allow them to reduce revenue losses arising from uncompensated care, as they would be serving fewer uninsured patients. This would allow them to direct a proportion of their revenue toward additional resources (Hawkins & Groves, 2011). While FQHCs had the opportunity to gain patients with private insurance, it was not expected that this expansion would significantly impact their patient coverage and revenue. Revenue from private insurance accounted for only 7 percent of FQHCs' patient revenues in 2012 (Shin et al., 2014). Moreover, the payment rates they receive from private insurers tended to be much lower than those received from Medicaid (Hurley, Felland and Lauer, 2007; Katz et al., 2011).

FQHCs were found to receive lower payment rates from private insurers as they lacked the power to demand higher levels of reimbursement, unlike their private-provider counterparts (Manatt Health Solutions et al., 2007; Beeson, 2012).

## **2.8 Actual impact of the ACA on coverage expansion in the U.S.**

Due to the timing of this study, analysis of a limited number of literature from peer-reviewed and grey literature regarding the ACA's impact on FQHCs in practice is included and presented in the following sections. The aim is to compare the anticipated impact of the ACA on FQHCs to the actual impact of the policy on these providers in practice. This provides insight on what is currently known about the impact of the ACA on FQHCs and the gaps in knowledge as related to its enactment in practice.

A major change in the design of the ACA that made a significant impact on the way it was implemented in practice was the Supreme Court's decision on the case National Federation of Independent Business v. Sebelius [2012] that made Medicaid expansion optional for states (Taylor, 2012; Abraham, 2014; Haeder & Weimer, 2015). This case was significant, as some states did not wish to expand Medicaid and wanted to ensure the federal government could not enforce them to do so. The decision of the Supreme Court allowed a central tenet of the ACA—expanding Medicaid to cover a larger proportion of low-income populations—to be decided by state governments. As a result, not all states expanded the Medicaid program. When coverage expansion took effect on 1 January 2014, a total of 25 states and the District of Columbia (D.C.) decided to expand the Medicaid program, and 25 states elected not to adopt the expansion (The Henry J. Kaiser Family Foundation, 2013). Table 2.7 shows a list of states that did and did not expanded Medicaid on 1 January 2014 when coverage expansion took effect. A small number of states (six) subsequently decided to expand Medical coverage so that by June 2016, the total number of states that expanded Medicaid had grown to 31 plus the District of Columbia (ASPE, 2016).

**Table 2.7: List of states expanding and not expanding Medicaid on 1 January 2014**

<b>States adapting Medicaid expansion at this time</b>	Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia (D.C.), Hawaii, Illinois, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Rhode Island, Vermont, Washington, West Virginia
<b>States not adapting Medicaid expansion at this time</b>	Alabama, Alaska, Florida, Georgia, Idaho, Indiana, Kansas, Louisiana, Maine, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Carolina, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, Wyoming

Source: The Henry J. Kaiser Family Foundation (2013)

Coverage expansion was expected to enable 25 million people to gain coverage in 2014 (Congressional Budget Office, 2013; Abraham 2014). In addition, 22 to 25 million people were estimated to have gained coverage by 2016 (Krueger & Kuziemko (2013). However, the estimated number of people who actually gained coverage under the ACA was lower (Blumenthal & Collins, 2014). Table 2.8 shows national estimates of people gaining coverage from specific insurance types after coverage expansion took effect in 2014. According to Blumenthal, Abrams and Nuzum (2015), an estimated 10.8 million low-income people were able to gain coverage from Medicaid. The U.S. Department of Health & Human Services (HHS) had a larger estimate of people gaining coverage from public insurance as they included non-elderly adults gaining coverage from Medicaid and children from Children Health Insurance Program (CHIP) (Sommers et al., 2015). HHS estimated that 12.2 million people gained coverage from Medicaid or Children's Health Insurance Programs (CHIP) as of March 2015 (Sommers et al., 2015). The actual number of people gaining coverage from private insurance in 2014, according to Health & Human Services (HHS), was 11.7 million (Sommer et al., 2015).

**Table 2.8: National estimates of people gaining coverage with different insurance types under the ACA**

<b>Estimates of people gaining specific health insurance type after implementation of ACA</b>	<b>Source</b>
<b>Medicaid</b>	
10.8 million people in 2014	Blumenthal, Abrams and Nuzum., (2015)
12.2 million people as of March 2015	Sommers et al. (2015)
<b>Private insurance</b>	
11.7 million people as of 2014	Blumenthal, Abrams, and Nuzum., (2015); Sommers et al. (2015)
<b>Uninsured</b>	
25 million working age people in 2015	Collin et al. (2015); Hayes et al. (2015)

### **2.8.1 Actual impact of coverage expansion on Medicaid expanded and non-expanded states resulting from implementation of the ACA**

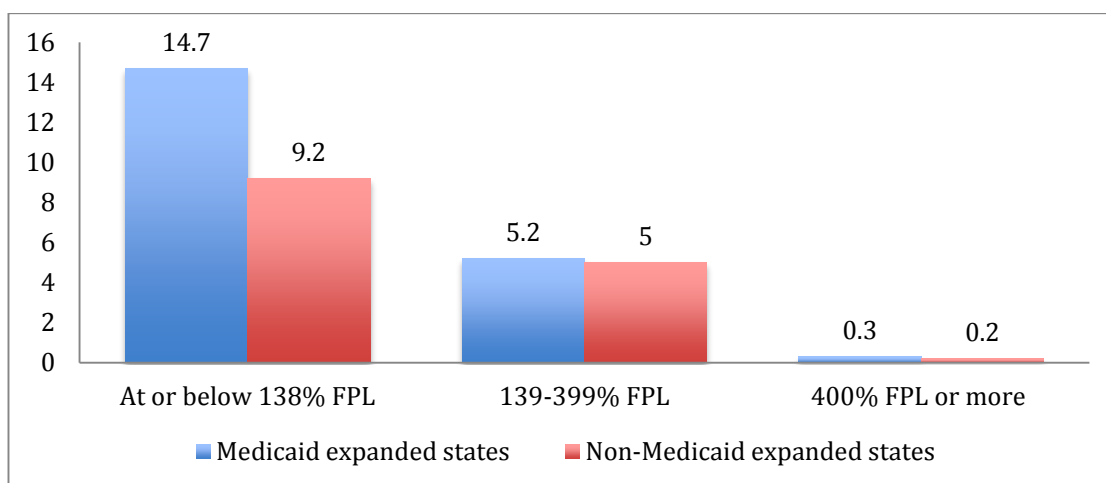
Several studies indicate that, post-ACA implementation, Medicaid-expanded states experienced a greater increase of people gaining coverage than states that did not expand Medicaid (Long et al., 2014a,b,c; Hayes et al., 2015).

Moreover, these states had a greater increase of low-income people enrolling to the Medicaid program for coverage (Long et al., 2014a,b,c; Hayes et al., 2015, ASPE, 2016). Figure 2.1 shows the findings of Long et al., (2014c) in respect of the proportion of people with annual income that fall under specific federal poverty levels (FPL) gaining coverage in expanded and non-expanded states from July/September 2013 and July/September 2014. It was estimated that Medicaid-expanded states experienced a 14.7 percentage point increase in the percentage of people considered low-income as they had annual income at or below 138 percent of FPL gaining health insurance from July/September 2013 and July/September 2014 (Long et al., 2014c).

By contrast, non-expanded states experienced a 9.2 percent increase in the percentage of their low-income populations with annual income at or below 138 percent of FPL gaining health insurance during the same time period. The

proportion of people gaining health insurance with annual incomes between 139 percent and 399 percent of FPL did not significantly differ between expanded and non-expanded states. Long et al., (2014c) found the proportion of people gaining health insurance with annual incomes between 139 percent and 399 percent of FPL in expanded states increased by 5.2 percentage points, while it increased by 5 percentage points in non-expanded states between July/September 2013 and July/September 2014. The proportion of people gaining health insurance with higher incomes (400 percent of FPL or above) increased by 0.3 percentage points in expanded states and increased by 0.2 percentage points in non-expanded states between July/September 2013 and July/September 2014 (Long et al., 2014c).

**Figure 2.1: Proportion of people with annual incomes in different Federal Poverty Level (FPL) gaining coverage from July/Sept 2013 to July/Sept 2014**



Source: Long et al., (2014c)

The implementation of coverage expansion reduced the U.S. uninsured rate. According to Finegold & Gunja (2014), the uninsured rate fell from 20.4 percentage points in 2013 to 18.3 percentage points in 2014. The uninsured rate continued to decline after the first year of the ACA implementation, but an estimated 25 million people remained without coverage (Collin et al., 2015; Hayes et al., 2015). According to Hayes et al., (2015), Medicaid expanded states experienced a greater reduction in their uninsured population. For example, states that expanded Medicaid (Arizona, Arkansas, California, Kentucky, Nevada, New Mexico, Oregon, Rhode Island, Washington, and West Virginia)

experienced a 6 to 9 percentage point reduction of their uninsured rate (Hayes et al., 2015). By comparison, non-expanded states (Florida, Georgia, Idaho, Michigan, Montana, North Carolina, Oklahoma, South Dakota, and Texas) experienced a 4 to 5 percentage point reduction in their uninsured rate (Hayes et al., 2015).

### **2.8.2 Actual impact of the ACA on FQHCs' patient coverage and demand**

Several studies (Shin et al., 2015; Hoopes et al., 2016; Miller, 2016; Whisner & Burton, 2017) found FQHCs in states that implemented Medicaid expansion experienced a noticeable change in their patient coverage. FQHCs in Medicaid expanded states served a higher proportion of patients with Medicaid and did not experienced noticeable changes in the proportion of patients with private insurance (Rosenbaum et al., 2017). For example, in Michigan where the state government decided to expand Medicaid, FQHCs experienced an increase in the proportion of patients with this coverage type from 45 percent to 59 percent between 2013 and 2015 (Lawton et al., 2016).

According to Shin et al., (2015b), the proportion of Medicaid patients served by FQHCs in expanded states increased from 44 to 53 percent between 2013 and 2014. By comparison, the proportion of Medicaid patients served by FQHCs in non-expanded states increased from 33 percent to 34 percent during the same time period. Rosenbaum et al. (2017) found that 55 percent of total FQHC patients in expanded states had coverage from Medicaid compared to 35 percent of total FQHC patients in non-expanded states had the coverage type in 2015.

In respect of private insurance, two studies (Shin et al., 2015b; Rosenbaum et al., 2017) suggested that generally FQHCs did not gain newly insured patients with private insurance in expanded and non-expanded states. Shin et al. (2015b) found that the proportion of patients with private insurance between 2013 and 2014 increased from 14 to 15 percent in Medicaid expanded states and 15 to 17 percent in non-expanded states. Rosenbaum et al. (2017)

found that by 2015, the proportion of patients with private insurance served by FQHCs in expanded states was 16 percent while it accounted for 19 percent in FQHCs located in non-expanded states.

As expected, FQHCs in Medicaid-expanded states experienced a greater decline of uninsured patients than in non-expanded states. The proportion of uninsured patients served by FQHCs in expanded states decreased from 32 percent to 22 percent between 2013 and 2014 (Shin et al., 2015b). FQHCs in non-expanded states experienced a decline of 41 to 38 percent in the proportion of uninsured patients served during the same time period (Shin et al., 2015b). By 2015, the proportion of uninsured patients served by FQHCs in expanded states was 19 percent while it was 36 percent in non-expanded states (Rosenbaum et al., 2017). Other studies (Lawton et al., 2016; Searing & Hoadley, 2016) also found this trend. Although FQHCs in expanded states gained more insured patients with Medicaid and saw a reduction in serving uninsured patients, they remained to be a vital source for care for those who remained without coverage (Hatch et al., 2018).

One of the predictions explaining why FQHCs might have gained more Medicaid patients after the implementation of the ACA was that newly insured patients would struggle to establish care with certain PCPs (Sommers et al., 2011; Hennessy, 2013). Not all PCPs accepted new Medicaid patients or limited the number of new patients with the coverage type in their practice prior to the ACA (Sommers et al., 2011). As a result, FQHCs were expected to absorb more newly insured patients with Medicaid than other PCPs, such as private clinics or private hospitals (Sommers et al., 2011; Hennessy, 2013). From their findings, Hamel et al. (2015) suggested that this practice continued after coverage expansion took effect. Their analysis of the 2015 National Survey of Primary Care Providers found 92 percent of surveyed FQHCs were accepting new Medicaid patients compared to 63 percent of primary care providers that were hospital-owned and 43 percent that were private practiced.

Another anticipated impact of coverage expansion was that FQHCs in expanded states would experience a greater demand for care as a result of gaining more newly insured Medicaid patients. Several studies (Shin et al.,



2015b; Hoopes et al., 2016; Rosenbaum et al., 2017; Whishner & Burton, 2017) confirmed this as their findings suggests FQHCs in expanded states saw an overall increase in their visit rates compared to those located in non-expanded states. Angier et al.'s (2015) study also suggests coverage expansion did cause an increase in demand for care on FQHCs, particularly those in Medicaid-expanded states. Angier et al. (2015) investigated the changes in demand on FQHCs within the Oregon Community Health Network, which included 156 CHCs from five states that expanded Medicaid (California, Minnesota, Ohio, Oregon and Washington) and four states not expanding Medicaid (Alaska, Indiana, Missouri, and North Carolina). By analyzing electronic health records after coverage expansion took effect, they found that FQHCs in expanded states experienced a 32 percent increase in the proportion of patients served that were covered by Medicaid, which translated into 71 more visits made per month. Visits made by uninsured patients were found to reduce by 40 percent in Oregon, Washington, and Ohio.

### **2.8.3 Actual impact of the ACA on FQHCs' revenue and capacity**

The implementation of coverage expansion particularly that of Medicaid, was expected to increase FQHCs' patient revenue. However, the impact of the reform on patient revenue differed state by state given some states' decision to forgo Medicaid expansion. Of note, Shin et al., (2015a) suggested revenues from Medicaid for FQHCs in expanded states were already higher than those in non-expanded states prior to the implementation of coverage expansion in January 2014. In 2013, Medicaid revenue accounted for 36 percent of total patient revenue in expanded states, while it accounted for 23 percent of total patient revenue in non-expanded states during the same period (Shin et al., 2015a). Several studies (Rosenbaum et al., 2015; Searing & Hoadley, 2016; Lawton et al., 2016) found that after the enactment of the ACA, the total revenue of FQHCs in expanded and non-expanded states differed due to Medicaid expansion. Findings from Rosenbaum et al.'s (2017) suggests that 79 percent of FQHCs in expanded states reported an increase in revenue from Medicaid compared to 44

percent of FQHCs from non-expanded states. By contrast, 45 percent of FQHCs in expanded states saw an increase in revenue from private insurance while 56 percent of FQHCs in non-expanded states saw their revenue increase from the coverage type. Findings from Searing & Hoadley (2016) further suggest that generally FQHC administrators in expanded states saw an increase in their patient revenue from Medicaid causing a more significant improvement in their overall revenue.

FQHCs in non-expanded states were generally more dependent on revenue from federal grants, which accounted for 35 percent of their total grant revenue, compared to 23 percent for FQHCs in expanded states (Shin et al., 2015a). Several studies (Fangmeier et al., 2016; Lawton et al., 2016; Wallace et al., 2016; Rosenbaum et al., 2017) found that FQHCs (whether they were located in expanded or non-expanded states) generally benefitted from the introduction of the enhanced federal funds.

FQHCs' improvement in their total revenue from the distribution of enhanced federal grants and increase revenue from patient coverage enabled them to expand their workforce, extend their physical resources, and improve their operations (Rosenbaum et al., 2010; Hawkins & Groves, 2011; Katz, et al., 2011; Hennessy, 2013; Money, 2013). Shin et al.'s (2014) analysis of the national data from Uniform Data System found that FQHCs' workforce expanded by more than 25,000 new full-time positions between 2009 and 2012. It was also estimated that more than 148,000 full-time equivalent staff worked for FQHCs in 2012, including 10,000 primary care providers and more than 7,500 nurse practitioners (Shin et al., 2014). This number increased to 157,000 full-time equivalent staff, including 10,700 physicians, in the following year (Shin et al., 2015a).

The additional grant funding also enabled FQHCs to expand their physical resources. For example, FQHCs in Detroit, Michigan were able to purchase new equipment such as X-rays, ultrasound machines, and dental tools (Fangmeier, 2016). Many FQHCs were able to expand their physical space by either by extending current facilities or opening new sites to improve their infrastructure (Shin et al., 2015b; Rosenbaum et al., 2017).

FQHCs' ability to increase their workforce and expand their physical resources enabled these providers to increase their capacity in meeting higher demand for care and serving more patients (Shin et al., 2015b; Rosenbaum et al., 2017). FQHCs located in Medicaid-expanded states (California and New York) and FQHCs in non-expanded states (Georgia and Texas) were found to increase their ability to provide services in behavioral health, dental care, and pharmacy (Wallace et al., 2016). A notable finding from several studies (Shin et al., 2015b; Rosenbaum et al., 2017) was that FQHCs in expanded states were able to increase their resources more than FQHCs in non-expanded states. FQHCs in expanded states were found to have an average of 7.6 service sites compared to non-expanded states, which had an average of 6.5 service sites (Rosenbaum et al., 2017). Shin et al., (2015b) and Rosenbaum et al (2017) found that on average FQHCs in expanded states were able to increase their dental and mental health services. Furthermore, FQHCs in expanded states were estimated to serve 40 percent more patients and provide 60 percent more visits on average compared to FQHCs in non-expanded states (Rosenbaum et al., 2017).

#### **2.8.4 Actual challenges experienced by FQHCs with expanding capacity**

Although FQHCs in expanded and non-expanded states had the opportunity to increase their resources and meet higher demand, the literature still found these providers continued to struggle to fully expand their capacity. One factor that made it difficult for FQHCs across the nation to expand their capacity was the challenge of hiring more clinical personnel. Studies (Fangmeier et al., 2016; Wallace et al., 2016; Lawton et al., 2016; Wishner & Burton, 2017) found that FQHCs in expanded and non-expanded states struggled to hire more staff given current shortages. This problem seems to be more pronounced for FQHCs in expanded states. According to Rosenbaum et al. (2017), FQHCs in expanded states found workforce recruitment and retention was significantly more likely to be identified as a top three problems than for FQHCs in non-expanded states.

The challenge of not being able to hire more clinical staff had major implications to the growth of these providers in expanded and non-expanded states, one implication being an inability to expand services even if space and equipment was available (Wallace et al, 2016). Limited staffing capacity also caused longer waiting periods particularly for patients served by FQHCs in expanded states (Shin et al., 2015b). According to Shin et al. (2015b), 35 percent of FQHCs in expanded states reported that patients experienced an increase in their wait time to get an appointment compared with 20 percent of FQHCs in non-expanded states. Rosenbaum et al., (2017) also support this finding as they found that 40 percent of FQHCs in expanded states and 30 percent of FQHCs in non-expanded states reported increase in waiting time.

## **2.9 Logic models and justifying its usefulness**

The previous sections presented an analysis of current literature on the impact of the ACA on FQHCs. The sections under 2.7 presented the anticipated impact of the policy on health centers. The sections under 2.8 presented an analysis of the limited available literature on the actual impact of the ACA on FQHCs after its enactment. This analysis showed that the intended implementation of the ACA differed from the actual implementation of the policy, as the process was more complex in practice. In considering the complexity of the ACA's implementation in a multi-governance set-up and to better understand its impact on FQHCs' ability to provide primary care, logic models were developed.

A logic model is a conceptual tool often used during a program's planning and evaluation phases to identify the key steps via which desired outcomes can be achieved (National Collaborating Centre for Health Public Policy, 2013; Petersen, Taylor and Peikes, 2013). Petticrew et al. (2013) demonstrated the usefulness of logic models when evaluating the impacts of complex interventions. Building on their work, logic models can potentially be used to examine mechanisms and impacts arising from policy changes, including those at a national level that are subsequently implemented at state, local and institutional levels. One of the potential benefits of using logic models

in this way is to identify key actors, relationships and processes involved in policy implementation (Hayes, Parcham and Howard, 2011; Petersen, Taylor and Peikes, 2013). This helps to identify how decisions and actions taken by actors throughout the implementation process contribute to, or detracts from, achieving the overall goal of the original policy (Anderson et al., 2011; Aurlacombe, 2011; Petticrew et al., 2013; Baxter, 2014; Kneale 2015). Logic models can also be useful in identifying the presence and influence of various contextual factors that may contribute to the success or failure of a particular policy (Howe et al., 2009; Jordan, 2010; Baxter, 2014). Lastly, they can be used to link empirical work with theoretical models of policy implementation and thus help researchers identify possible gaps in knowledge relating to the topic (Webster & Watson, 2002). The following sections presents the two logic models created after completing the literature review. The first logic model presents how the ACA was expected to impact FQHCs on a national level based on its original design and key goals. The second logic model presents the actual impact of the ACA on FQHCs based on its implementation in practice. It highlights the different experiences of FQHCs in Medicaid expanded and those in non-expanded states.

### **2.9.1 Mechanisms of the ACA and anticipated impact on FQHCs logic model**

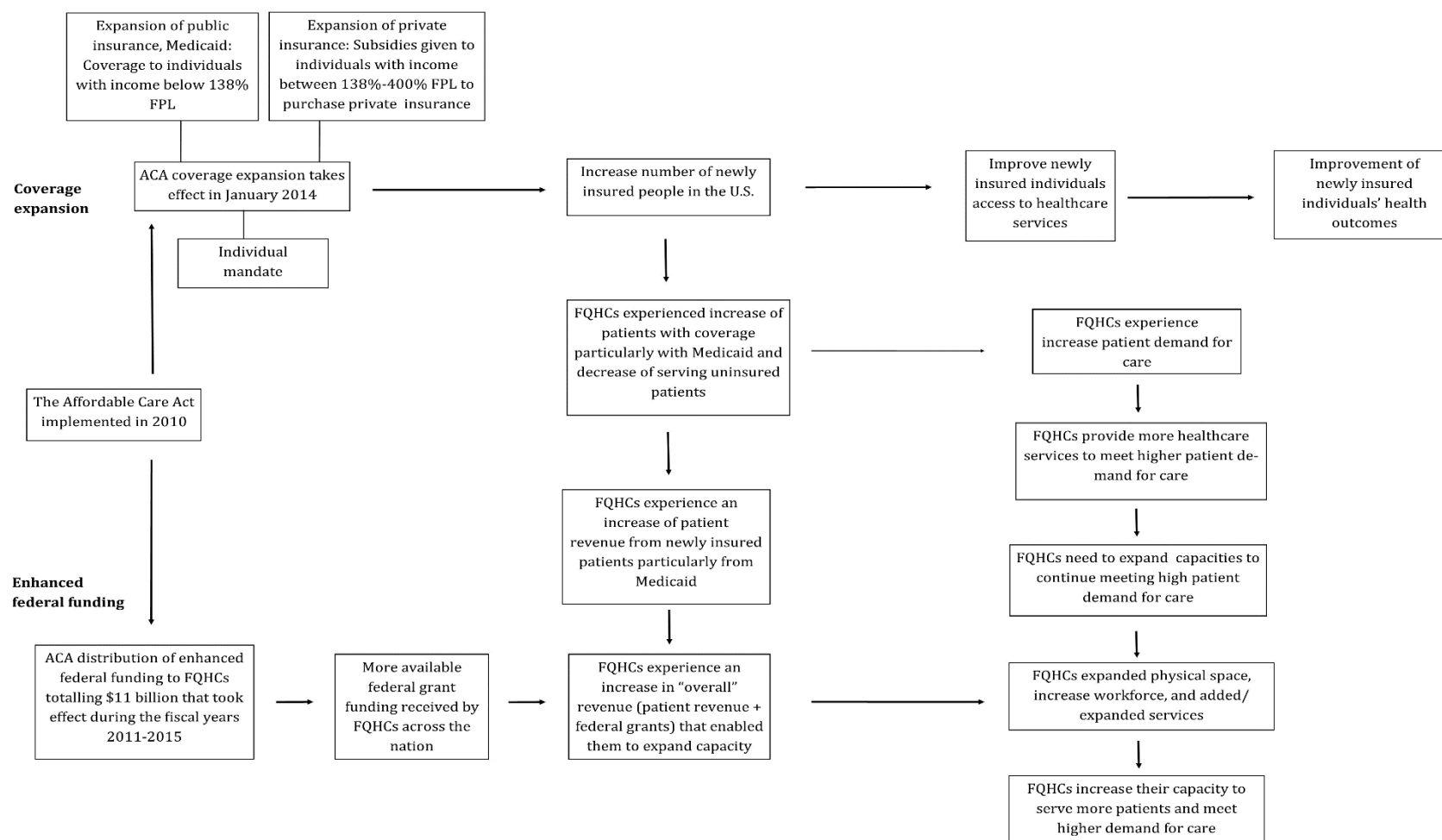
Sections 2.7.1 and 2.7.2 provided insights on the ACA's mechanisms that would impact FQHCs generally on the national level by conducting a review of peer-reviewed and grey literature. It is based on the ACA being implemented following its original design. The outcome of this analysis made it possible to develop logic model 1 titled "Mechanisms of the ACA and anticipated impact on FQHCs on the national level" (see Figure 2.2). The model begins with the implementation of the ACA in 2010 and diverges into two pathways: 1) coverage expansion and 2) enhanced federal funding to FQHCs. The pathway describing coverage expansion begins with its implementation by the federal government at the left of the diagram and moves towards the right. Coverage

expansion was implemented in January 2014 and would be accomplished by enforcing an individual mandate, and the expansion of the public insurance program called Medicaid and of private insurance. As the model moves to the right it shows the implementation of coverage expansion would increase the number of newly insured people in the country and cause them to experience an improvement in their access to health care services. A long-term outcome of coverage expansion was expected to be improved health outcomes for newly insured individuals.

The model shows the implementation of coverage expansion was expected to impact FQHCs by increasing the number of newly insured patients seeking care from them. This part of the model emphasizes the role of FQHCs in the implementation process and how the reform was predicted to affect them. It describes two ways coverage expansion would simultaneously impact FQHCs. The first would be the increase in demand for care, which would require FQHCs to provide more services and as a result expand their capacity to continue meeting demand. The second impact was the improvement in patient revenue, given the increase in newly insured patients served. Increased patient revenue would contribute to FQHCs' overall revenue.

The second pathway of this logic model shows the impact on FQHCs of the enhanced federal funding that totaled \$11 billion and took effect in 2011. This pathway also starts at the left of the diagram and moves towards the right. The funding's introduction was expected to cause an increase in federal grant funding given to FQHCs, causing their revenue to improve and enabling them to invest in more resources. The combination of the increase in patient revenue and available grant funding was predicted to cause an improvement in FQHCs' overall revenue. This would enable them to invest in additional resources and expand their capacity, therefore serving more patients over time.

**Figure 2.2: Logic Model 1- Mechanisms of the ACA and anticipated impact on FQHCs on the national level**



### **2.9.2 Mechanisms of the ACA and the impact on FQHC resulting from implementation logic model**

Sections 2.8.2 and 2.8.3 provided insights on the mechanisms that impacted FQHCs after the implementation of the ACA by conducting a review of limitedly available peer-reviewed and grey literature. Developing this model made it possible to observe the impact of the policy on FQHCs in practice. The outcome of this analysis made it possible to create a second logic model titled “Mechanisms of the ACA and the impact on FQHCs resulting from implementation” (see Figure 2.3). Unlike the first logic model, the implementation process for this model with regards to coverage expansion begins with the Supreme Court decision making Medicaid expansion an option for states following their ruling in the case National Federation of Independent Business v. Sebelius [2012]. The model continues to describe coverage expansion being implemented through enforcing the individual mandate and expansion of the public insurance Medicaid and private insurance. However, the decision from the Supreme Court to make Medicaid expansion an option caused the implementation of the policy to divert from the original design. As a result, two pathways were developed to show the mechanisms of the ACA and the impact it made on FQHCs in Medicaid-expanded states and non-expanded states.

As described in the first logic model, coverage expansion was predicted to impact FQHCs on a national level by increasing the number of newly insured individuals seeking care from them. The second model shows that coverage expansion caused FQHCs to experience this impact, with FQHCs in Medicaid-expanded states experiencing a greater increase than those in non-expanded states. As a result, FQHCs in expanded states experienced a greater increase in demand for care, requiring the provision of more services to meet this demand compared to those in non-expanded states. As demand for care increased, FQHCs in Medicaid-expanded states also experienced a greater increase in patient revenue from Medicaid, than FQHCs in non-expanded states.



The second pathway impacting FQHCs, as described in this logic model, began with the distribution of enhanced federal funding to FQHCs totaling \$11 billion. This pathway was the same as in logic model 1. The major difference is that FQHCs in Medicaid-expanded states experienced a greater increase of total revenue. This is due to FQHCs receiving higher revenue from patient coverage and gaining additional grant funding from enhanced funding from the ACA. This logic model emphasizes that FQHCs in expanded states were able to invest in more resources and expand their capacity to serve more patients compared to those located in non-expanded states.

Logic model 2 provides a visual guide on how the ACA was implemented in practice. It emphasizes that the process was different from the original design due to the decisions made by different stakeholders in the onset. Unlike logic model 1, this model presents more state level information by presenting the impact experienced by FQHCs in Medicaid expanded states and non-expanded states. These two models highlights the need to further investigate the experiences of FQHCs on a more local level in states that expanded Medicaid from non-expanded states to better understand the impact of the ACA on their ability to provide primary care to their patients.

[illegible]

## 2.10 Concluding summary

The chapter began by first introducing health systems' goals and the push for health systems to work towards achieving universal health coverage (UHC) in order to meet them. Section 2.3 highlighted how the process of working towards achieving near UHC is an ongoing and dynamic process. This section explored the strengths and weaknesses of public and private funding sources' abilities to move health systems towards extending coverage and achieving UHC. There is strong evidence that public finance can better support the goals of UHC compared to private funding sources. However, countries such as Switzerland and the Netherlands have been able to fund their health systems through mostly private sources and achieve a level of coverage close to the UHC ideal. In those cases, however, central government also plays a major role in developing regulations. This study examines in greater depth the U.S.'s effort to extend coverage in a mixed-funded system through the enactment of the ACA and how it impacts FQHCs as it serves many uninsured patients.

Section 2.4 presented empirical literature on the effort of the U.S. government to expand coverage through its mixed-funded system under different presidential administrations. The section also discussed the state government of Massachusetts' effort to expand coverage in a mix-funded health system through its enactment of Chapter 58 in 2008. However, the federal government and the state of Massachusetts' level of success was limited, and the example shows how implementation is not a straightforward process, particularly in a multi-governance system where it can be influenced by many factors. Section 2.5 continued this discussion by further exploring the complexity of policy implementation through a discussion of policy implementation theories. Policy implementation theories have highlighted those multi-government systems such as that in the U.S. may find it especially difficult to implement policy given the many stakeholders that take part in the process. In addition to different government bodies influencing the implementation process, other stakeholders—particularly at the local-level

such as street level bureaucrats (SLBs)—can also impact it. While scholars continue to debate the extent of SLBs’ discretionary power and their ability to significantly influence policy implementation, nevertheless, these stakeholders are part of the long string of implementers. This study explores in great depth the complexity of implementing coverage expansion in the U.S. through the ACA. Many of the studies on this topic have focused on how the implementation process occurs and produces outcomes in the perspective of national and state level studies. Fewer studies have investigated the complexity of implementing coverage expansion and how this translates to the local level. This study aims to contribute to addressing this gap, by providing knowledge of how the implementation of the ACA impacted local-level healthcare providers - the FQHCs.

Section 2.6 presented a review of the Affordable Care Act and the two provisions expected to significantly impact FQHCs: coverage expansion and enhanced federal grant funding. This study focused on understanding the impact of these two provisions on FQHCs, and the subsequent sections aimed to establish current thinking on the topic by analyzing relevant literature. Section 2.7 discussed the anticipated impact of the ACA on coverage expansion in the U.S. First, it analyzed current literature on the anticipated impact of the ACA on FQHCs’ patient coverage and demand in section 2.7.1, then revenue and capacity in section 2.7.2 and challenges and opportunities in section 2.7.3. The literature on this topic discusses the anticipated impact of the ACA on coverage and the implications for FQHCs. Fewer studies investigate the impact of the policy on FQHCs after its enactment, as it had only been effective for three years before the start of this study. Nevertheless, an analysis of the literature on this topic helped understand how the policy was implemented in practice and how it impacted FQHCs in Medicaid expanded states and in non-expanded states. Section 2.8 presents the actual impact of the policy on coverage expansion in the U.S. Section 2.8.1 presents how the provision impacted both Medicaid-expanded states and non-expanded states. This information helped to better understand the impact of the ACA on FQHCs in practice on a state level. Sections 2.8.2 and 2.8.3 present the actual impact of the policy on FQHC’s patient

coverage, demand for care, revenue, and capacity. This helped understand to what extent that ACA's anticipated impact on FQHCs was realized. It highlighted the significant impact of the Supreme Court's decision to make Medicaid expansion optional and the different experiences of FQHCs in Medicaid-expanded states and non-expanded states. This process helped develop two logic models. Section 2.9 explains why the logic models were developed for this study. Section 2.9.1 discusses the design of logic model 1 (Figure 2.2) and how it describes the anticipated impact of the ACA on FQHCs on a national level by organizing the theory on how the policy would impact these providers. The model also identifies gaps in the knowledge on this topic, showing how studies generally view FQHCs as a group and do not consider, for example, factors that might cause an FQHC in Hawaii to experience different outcomes to an FQHC in Florida. Section 2.9.2 discusses the design of logic model 2 (Figure 2.3) and how it describes the actual impact of the ACA on FQHCs in practice. It highlights how the policy's implementation process caused FQHCs in Medicaid-expanded states to experience different impacts from those in non-expanded states. This study pursued a major gap in the current knowledge on this topic: an understanding of the impact of the ACA on FQHCs' ability to provide primary care to low-income patients through the perspectives of administrators. Existing literature assumes that the ACA's expansion of coverage and enhanced federal grants given to FQHCs would enable them to meet patients' demands for care by allowing them to increase their capacity. This study explored this assumption by examining studies limited to the national and state levels, and by moving down to the local level by using a mix-method approach to bring into focus the effect of the ACA on the ground.

# Chapter 3: Methodology

## 3.1 Introduction

This chapter describes the research strategy, methods of collecting data, and the analytical approach of this thesis. It provides a detailed account of the research design, enabling the reader to understand the data used to answer the research question presented in this thesis.

Section 3.2 presents a reflexive overview of my own background and the influence it made on the overall approach of the study. Section 3.2.1 provides further insights into the influences of my background by discussing my epistemological stance that guided this study, i.e. critical realism. The subsequent sections then present a discussion of the multiple-case-study and multi-method approach of this project. Section 3.3 provides a discussion and justification for designing a multiple-case-study approach. Section 3.3.1 then describes how the multiple case studies were selected. There were two levels of selecting multiple case studies. The first level was selecting the states. The second level was specifically selecting FQHCs (the unit analysis for this study) in regions of the selected states. Section 3.3.2 provides a brief description of the selected FQHCs. As this study utilized the mixed-methods approach, section 3.4 explains why this approach was appropriate for this study. Section 3.5 describes the roles of qualitative and quantitative data in this study and the way these were collected and analyzed. Section 3.5.1 describes the quantitative data sourced from the Uniform Data System (UDS) used to provide background and context for addressing objectives one and two. Section 3.5.1.1 describes the process of selecting the variables, and section 3.5.1.2 discusses the way they were analyzed through descriptive statistics. Section 3.5.2 describes the qualitative data obtained from semi-structured interviews conducted with FQHC administrators used to address objectives one and two. Section 3.5.2.1 describes the process of obtaining ethical approval for the interviews. Section 3.5.2.2 discusses the way the interview samples were selected and section

3.5.2.3 describes how the interviews were conducted. Section 3.5.2.4 provides a description of how the interview data was analyzed using thematic analysis. Section 3.6 provides a brief summary of the chapter.

## **3.2 Background to the PhD**

Prior to commencing this study, I worked for several years in the public health sector in the San Francisco Bay Area, California, in various roles for several non-profit healthcare organizations. One of these roles was community health educator for one of the largest federally qualified health centers (FQHC) in the region. My position familiarized me with the FQHC system through the perspective of my organization. My role also enabled me to become familiar with contemporary issues affecting the delivery of care and the impact of local environmental factors on the FQHC. My work experience and knowledge with the FQHC system thus influenced the way this study was designed and the approach to data collection.

According to Hirsch (1995), a project's success is influenced by the researcher's personal knowledge and/or personal connection to the context of the study. I was aware that my personal experience and knowledge of the FQHC system would greatly contribute to the success of this study. I understood the relevant context, and had a sensible approach to pursuing the inquiry. For example, I believed it was essential to gain the perspectives of key administrators to investigate the research question, as they were more likely to have an in-depth understanding of the topic.

FQHCs are made up of various levels of administrators—executive directors and mid-level managers/supervisors that had various roles in managing the organization. Some executive directors oversee the fiscal management, strategic planning, and different departments of the organizations. Mid-level managers/ supervisors provide day-to-day management of different departments of the organizations to support executive directors and line staff. Given their role, they are likely to be familiar with the overall direction of the organization and the issues experienced when

delivering care to patients. Knowing the roles of specific executive and mid-level managers thus motivated me to gain their insight and perspective on the impact of the ACA on FQHCs. Given my prior work experience and interaction with these types of administrators, I was confident and comfortable interacting with them. My prior contact with some FQHCs and my wider network of healthcare professionals also provided me with good access to these administrators.

While there were several advantages to my background, it also introduced potential disadvantages. My background could make it difficult to separate myself from the finer details and interpret the findings in the context of broader health systems discussions and debates. An example is using the language of FQHC administrators to describe complex or unfamiliar concepts to a wider audience. This requires constant reflection and translation to ensure those who have little or no background knowledge of FQHCs or the U.S. health system can understand the findings. My connection to FQHCs may have provided better access to personnel, but my pre-existing knowledge and understanding of FQHCs may have also influenced and somewhat constrained the direction of my investigations. I believed an approach to this inquiry was to understand the impact of the ACA through the perspective of administrators. Although these key stakeholders might have extensive knowledge on this topic, this is only one perspective and other stakeholders (e.g. other professional staff, clinicians, patients, or state-level FQHC representatives) could provide additional insight.

### **3.2.1 Epistemological stance**

This project is grounded on the philosophy of critical realism. This perspective posits the reality of the social world is independent from observers (Mingers, 2006; Easton, 2010). However, understanding the realities of the social world is possible by gaining access to multiple social actors' perspectives and understandings (Krauss, 2005; Ritchie & Lewis, 2003). The philosophy of critical realism coincides with how I view and understand reality in the social world. I believe people's experience and interpretation of their reality may vary



due to various factors such as age, ethnicity, gender, socio-economic status, and history. People's roles and positions in different environmental settings also influence their perspective on reality. Therefore, it is important to obtain perspectives from various people to better understand the reality being inquired. In regards to this study, gaining the viewpoint of key FQHC administrators that had roles in implementing the organization's strategy, managing organizational changes, and responding to outside factors affecting them was important as they are likely to have a relevant perspective on the study's inquiry. While critics argue that examining multiple perspectives can be a weakness in understanding reality, Ritchie & Lewis (2003) counter that reality is rich and in itself diverse and multifaceted. The collection of perspectives from multiple vantage points from observers that experience reality enables a better understanding of the complex reality (Easton, 2010; Ritchie & Lewis, 2003). Examining the perspectives of multiple FQHC administrators can provide insight into the similarities and differences they experience under the ACA. This makes it possible to understand the factors that caused administrators to experience similar or different realities. It also provides the opportunity to further understand the complex reality produced by the implementation of the ACA for these organizations.

In order to gain a comprehensive understanding of reality from different perspectives, I believe it is important to analyze different data sources. Qualitative and quantitative data can provide different insights into the inquiry of reality or social phenomena. Thus, combining the analysis of both quantitative and qualitative data can increase the likelihood of a richer and more elaborate understanding of the phenomenon being investigated (Greene, 1989). However, this approach can create conflicts between the epistemological stances associated with each type of data analysis. Some scholars who have undertaken the approach of mix-methods have posited that this conflict can be addressed by the support of paradigmatic pragmatism. Pragmatism has gradually emerged as a result of the growing use of mixed methods in health care research (Everest, 2014). It aims to understand reality by emphasizing the need to holistically investigate the phenomenon being studied (Johnson &

Onwuegbuzie, 2004). Moreover, its ultimate goal is not to understand the ultimate truth of reality, but rather to understand the “temporary and tentative truth” that is expected to change (Everest, 2014 p. 12). This study aims to understand the temporary and complex reality of how the ACA has impacted on FQHCs and their ability to provide primary health care to low-income populations at a given point in time, acknowledging that this ‘truth’ is fluid and that the real world will already have changed by the time the thesis is written.

### **3.3 Design and the justification of the multiple case study approach**

The case study approach is “useful to employ when there is a need to obtain an in-depth appreciation of an issue, event or phenomenon of interest, in its natural real-life context” (Crowe et al., 2011 pp. 1). An in-depth exploration of complex contemporary issues through the use of case studies is possible as it allows a thorough investigation of research questions focused on understanding “how,” “what,” and “why” phenomena occur (Yin, 2003; Gerring, 2004; Crowe et al., 2011). For example, the approach can help determine “what” issues were experienced or “why” certain decisions were made (Crowe et al., 2011). It provides the opportunity to gather explanations for possible causal links and pathways that cause certain outcomes to occur (Yin, 2003).

This study uses the multiple-case-study approach to investigate the research questions through the perspective of administrators working in local-level healthcare providers called Federally Qualified Health Centers (FQHCs). In order to fully understand the perspective of FQHC administrators on the impact of the policy, the inquiry began by thoroughly understanding the literature in the field. This ensures an in-depth understanding of the current body of literature in the selected area and locates the inquiry in the appropriate context (Drake, Shanks and Broadbent, 1998).

Understanding the context of this study was important as it provided insight into why certain events and actions occurred. It needed to consider the role of the multi-level government system of the U.S. and its effect on policy

implementation. As discussed in Chapter 2, the federal government can develop and encourage state governments to enact policy through fiscal support. However, they have limited powers to force the state government to implement a policy (Litman & Robins, 1991). This is due to the fact that state governments have comprehensive legal authority over the healthcare system in their jurisdiction (Litman & Robins, 1991). The intergovernmental relationship between the federal and state governments can determine the level of success or failure of enacting a policy (Litman & Robins, 1991; Doonan, 2013). This contextual factor was important to consider, as it influences the way policy implementation occurs in the U.S. and the enactment of the ACA. For example, the implementation of coverage expansion did not occur the same way for all states in practice due to the Supreme Court's decision that made Medicaid expansion optional. This policy change had significant implications for the implementation process and had to be considered.

Contextual factors from the local level were also important to consider in this study as they influence the impact of the reform on FQHCs. Local level factors (e.g., politics, socio-demographic characteristics, geographical location, etc.) can cause FQHCs to experience a different impact of the ACA, even if they are both located in the same state and county. Local politics and economics, history, societal influences, and organizational attitudes are all factors that can influence the way policy is implemented (van Eyk et al., 2001; Khan & Khandaker, 2016) and its impact on healthcare providers.

Lastly, choosing a multiple case study approach enabled the ability to exemplify replication in the experiences of FQHCs under the reform. Findings from case studies cannot be generalizable, as they do not have statistical power or generalizability (Yin, 2009). However, findings from multiple case studies are considered more compelling than a single case study as two or more cases supporting the same findings can claim replication (Herriot & Firestone, 1983; Yin, 2009). By comparing the impact of the ACA on FQHCs in different locations of the country, it can help identify common experiences and factors that may have contributed certain outcomes to occur in one site but not the other.

### **3.3.1 Selection of case studies**

The selection of case studies requires identifying the unit of analysis. The unit of analysis can be an individual, a group of people, an event or entity, but it is determined by the research question (Yin, 2003). The unit of analysis for this study is Federally Qualified Health Centers in the states of Arizona, California, and Texas. There were two levels of case study selection for this project. The first level was selecting the states that would be included in the inquiry. The project aimed to select states that both expanded and did not expand the publicly funded Medicaid program under the ACA to explore the impact this expansion made on extending coverage. California was the selected Medicaid-expanded state, and Texas was the selected non-expanded state. These two states represented the extremes in respect of support for Medicaid expansion, with California strongly for it and Texas against (Blahous, 2013; Rudowitz, Artiga and Musumeci, 2015). Arizona was included as a third state because it was a state that was expected not to expand the program (Owcharenko, 2013; Young, 2013; Advisory Board, 2017). However, the Republican governor at the time supported the initiative and created a bi-partisan coalition to expand the program (Young, 2013; Advisory Board, 2017). Arizona, a state where it could be argued lawmakers supported the Medicaid program with reluctance, was included to examine if and how their experience would differ from those of California and Texas. In addition, the three states were selected due to their classification as 'Border States' within the lower part of the U.S. as they border Mexico. Approximately 11.5 million people live in the region, which has a particularly large young and low-income population (Homedes & Ugalde, 2003). The U.S. Bureau of the Census in 1997 classified each of these three states, Arizona, California, and Texas, as three of the 15 states projected to have the highest net population increase between 1995 and 2025 (Campbell, 1997). California and Texas were also projected to have the largest net immigration increase between 1995 and 2025 (Campbell, 1997).

The second level of case study selection was identifying specific FQHCs, for which a non-probability selection process was used. This process was

appropriate for this study as it aimed to select units sharing common characteristics and features (Ritchie & Lewis, 2003; Gerring, 2004). The selection of FQHCs was also based on convenience sampling as I utilized my network to connect with FQHC administrators.

All the selected FQHCs had to be classified as a HRSA program grantee and identified as a community health center. These FQHCs specifically receive federal grant funding from Section 330 of the Public Health Service Act (PHSA) (Heisler, 2016). The funding provides financial support to FQHCs that provide outpatient primary care services to low-income populations (Heisler, 2016). In addition, FQHCs were required to identify as a community health center in order to be eligible for inclusion. Under the Section 330 PHSA grant program, four types of health centers receive funding: (1) community health centers serving the general population; (2) health centers for the homeless; (3) health centers for residents of public housing; and (4) migrant health centers (Heisler, 2016). Community Health Centers (CHC) were selected as the FQHC type for this study as they serve the general low-income and disadvantaged population (Heisler, 2016). The aim of this study is to understand the impact of the ACA on FQHCs providing care to the general population; therefore, health centers serving specific population segments were not selected. To ensure the FQHCs selected as cases for this study satisfied the criterion of being a community health center, background information on their websites was reviewed. As this study only investigates community health centers, they will be referred to as FQHCs throughout.

FQHCs at the local level were then selected in urban areas of the three states in designated areas that have few health care providers or that serve populations identified as medically underserved (Heisler, 2016). Medically underserved areas are defined as having shortages in health care services (Health Resources & Service Administration (HRSA), 2006). Underserved populations have been defined as those experiencing economic, cultural, or linguistic barriers that cause them to experience barriers when accessing care (Heisler, 2016).

FQHCs in urban and rural areas have the same purpose: to provide care to disadvantaged populations. All FQHCs, whether located in urban or rural areas, must provide primary health care services that treat acute or chronic health conditions (HRSA, 2006). However, there can be slight differences. For example, FQHCs in urban areas must provide primary care services to all individuals in various age groups. They must also either provide emergency care onsite or arrange access to other health care providers offering emergency treatment at all times (HRSA, 2006). By comparison, FQHCs in rural areas may provide primary care services to particular age groups (e.g., services to family, pediatrics, internal medicine) (HRSA, 2006). They are also required to provide emergency care onsite (HRSA, 2006). Another major difference between FQHCs in rural and urban areas is the population they serve, given different levels of insurance and uninsured people (HRSA, 2006). Rural and urban FQHCs also face different geographical challenges in respect of access to care, resources, and support (Daniels et al., 2007). The distinct difference between FQHCs located in urban and rural areas led to this study focusing on health centers in urban settings. Therefore, the FQHCs selected for the study were chosen from the specific urban regions of Arizona, California, and Texas. Maricopa and Pima counties were selected in Arizona; Alameda, Napa, and Marin Counties were selected in California; and Travis County was selected in Texas. These counties were selected based on convenience sampling due to my connection with the FQHCs in the area.

While the ten selected FQHCs were chosen from specific urban areas, their size based on patient population varied. Some FQHCs served over 50,000 patients while others served less than 15,000 patients. It was recognized that the selected case studies in each of the regions would include FQHCs with a large patient population and FQHCs with a smaller patient population. This allowed for the examination of a diverse cohort of FQHCs to determine whether their patient population made a difference to their experience under the ACA.

The final criteria used to select FQHCs were the willingness of administrators to participate within the study. FQHC leaders were identified by reviewing their organizational websites and determining their roles. Email

communication was then established, in which the project was described and their level of support determined. Identifying FQHC leadership supportive of the study was essential as it enabled access to administrators that could take part in the data collection process.

### **3.3.2 Background information of selected FQHCs**

Ten FQHCs were selected for this study. Four of these were located in Arizona within two urban counties—Maricopa and Pima. The four FQHCs varied in the number of patients they served and the number of operating satellite sites. One FQHC served just over 8,000 patients, whereas two of the FQHCs served over 80,000 patients. One FQHC had just one additional operating site while the three others had multiple satellite sites serving different parts of the region. While the four FQHCs differed in their patient population and physical capacity, all of the providers offered patients comprehensive primary care services.

The FQHCs selected in California were located in three counties of the San Francisco Bay Area—Alameda County, Marin County, and Napa County. The Bay Area has a large number of operating FQHCs; therefore, the selection of cases was mostly guided by the availability and willingness of administrators to participate with the study. Again, the range of patients served by the four Californian FQHCs varied, with one serving over 14,000 patients, two serving just over 35,000 patients, and one serving over 90,000 patients. Two FQHCs had extended their capacity and serve multiple counties. All four FQHCs provide comprehensive primary health care services.

The selected FQHCs in Texas were located in Travis County, the only two FQHCs serving the area. One health center was established and became an FQHC in the 1970s and serves over 80,000 patients. The other was also established in the 1970s as a free clinic, only becoming an FQHC in 2012. It serves just over 13,000 patients. Both Texan FQHCs provide primary care services. However, the larger FQHC has more capacity and resources for patients. An extensive description of each of the selected FQHCs can be found in Appendix I.

### **3.4 Justification of using mixed-methods**

Several scholars (Darke, Shanks and Broadbent, 1998; Ritchie & Lewis, 2003; Miller et al., 2013) posit the utilization of both qualitative and quantitative data is essential when conducting evaluative studies, as each data source provides insight, which the other cannot effectively provide. For example, quantitative data can describe the measurement of an outcome, whereas qualitative data provides information about description and process (Ritchie & Lewis, 2001). This study combined the strengths of both data sources to comprehensively investigate the research question. The mixed-methods approach is increasingly used in health service research, as it has been seen to be an effective approach when investigating complex interactions in health service delivery (Barbour, 1999; Foss & Ellefsen, 2002; Palinkas et al., 2011; Curry et al., 2013; Miller et al., 2013). The use of multiple pragmatic methods in real-world situations enables a comprehensive investigation of complex topics (Miller et al., 2013). By combining the analytical findings of different approaches, a multiple-methods study produces new knowledge (Foss & Ellefsen, 2002) with enhanced validity (Kelle, 2001).

According to van Eyk et al. (2001), studying healthcare reform can be accomplished on different levels—system-wide, local, organizational, or clinical. Understanding perspectives from these different levels can provide a richer and more thorough understanding of the impact of healthcare reform. Van Eyk et al. (2001) also posit that there is ‘no single story’ when understanding the impact of healthcare reform, as stakeholders situated in different levels of the implementation process experience many differing realities.

This study analyzes data from the federal, state and local levels using quantitative and qualitative data sources. The approach enables an understanding of how the ACA impacted FQHCs’ ability to provide primary care to their patients. The analysis of numerical data from the Uniform Data System (UDS) shows how FQHCs were impacted by the ACA on a national and state level, in both Medicaid-expanded states and non-expanded states. More specifically, the analysis of this data shows how FQHCs in Arizona, California



(the expanded states), and Texas (the non-expanded state) experienced changes in their patient coverage, resources, service delivery and workforce during the first 5 years of the ACA, and whether the impacts were similar or different depending on whether Medicaid expansion took place. It also shows how FQHCs might be affected by the policy at the local level, considering the general trend observed at the state level. However, the analysis of the UDS's quantitative data cannot provide explanations for the observed trends. This deficiency in the analysis of quantitative data from the UDS is thus addressed by analyzing qualitative data from the administrator interviews.

The analysis of qualitative data provides an opportunity to better understand FQHCs' experiences under the ACA at the local level. It can explain and uncover issues best described in a narrative form; such as why certain elements operated the way they did in a specific context and the associated outcomes (Ritchie & Lewis, 2003; Vaismoradi et al., 2013). An analysis of qualitative data can explain why an FQHC might be impacted by the ACA in a similar or different way to effects observed in the state-level data. It can also highlight federal, state, or local level factors that could cause FQHCs to experience certain outcomes and how they responded to them.

### **3.5 Methods and Analysis**

The research objective for this project that guided the inquiry of the overall research aim is as follows:

*i) How was the ACA seen to have impacted on patient insurance coverage, demand for care, and the revenues of FQHCs during 2008-2015?*

*ii) How have FQHC administrators experienced and responded to the impacts of the ACA on patient insurance coverage, demand for care, revenue and capacity in order to ensure these health care providers could continue to meet the needs of their patients?*

In order to address these objectives, two data sources were collected and analyzed: (1) quantitative data from Uniform Data System (UDS) and (2) qualitative data from semi-structured interviews. These differing sources of

data were selected to provide multifaceted insights on the topic, enabling a comprehensive investigation of the research question (Ritchie and Lewis, 2003). The following section discusses the methods undertaken to collect and analyze each data source.

### **3.5.1 Uniform Data Systems (UDS): Understanding trends in patient coverage, provided services, and funding sources under the ACA**

In order to address Objective One and parts of Objective Two, quantitative data from the Uniform Data System (UDS) was collected and analyzed. The Uniform Data Systems (UDS) is a national data system managed by The Bureau of Primary Health Care (BPHC) under the Health Resources and Services Administrations (HRSA) (Bureau of Primary Health Care (BPHC), 2016). It collects information annually on Federally Qualified Health Centers—their patient demographics, services provided, clinical processes, patient health outcomes, patient use of services, costs, and revenues supporting their operation since 1996 (Shi, Lebrun and Tsai, 2010; BPHC, 2016). All FQHCs receiving funding from the federal government through Section 330 of the Public Health Service Act are required to submit standardized data about their organization (BPHC, 2016). The data is publicly available and can be obtained on the HRSA website through the Health Center Program Grantee Data section: <https://bphc.hrsa.gov/uds/datacenter.aspx?q=d>.

An analysis of quantitative data was included in this study to understand how the policy changed FQHCs' patient coverage, operating sites, revenue, service delivery, and workforce from 2008 to 2015 in Arizona, California and Texas. It allows for a clearer understanding of the policy's impact and shows whether being in a Medicaid-expanded state, as opposed to a non-expanded state, made a difference to the providers. The analysis of the quantitative data was limited in such a way as to primarily provide context within which the perspectives of the FQHC administrators in the local level could be understood.

Furthermore, the analysis of the UDS data provided additional contextual information to assist with designing the interview schedule used during the collection of qualitative data. By understanding the changes in the selected

variables, it helped identify topics that could be further explored through interviews with FQHC administrators.

### **3.5.1.1 Selecting the variables**

UDS data from 2008 to 2015 was selected for this study as it covered the period from two years before the ACA to the first five years of its implementation (2010 to 2015). Data from 2008 to 2010 was included to establish trends in FQHCs' revenue flows and patient coverage prior to the implementation of the reform. Data was extracted from the UDS website between March 2014 and June 2014. Data for the year 2015 was collected later, in June 2015, as it was not publicly available earlier. UDS data was collected for the U.S. as a whole as well as for the states of Arizona, California, and Texas. The following variables were included in the study: operating FQHCs, coverage types of patients over the age of 18 (Medicaid, private insurance, self-payer), services provided to patients (overall services, medical services, mental health services, and dental care services), full-time equivalent (FTE) of selected clinical employees, and revenue sources.

Data collected for the variable "operating FQHCs" showed the total number of operating FQHCs in the U.S., and the three states. Data collected for the variable "coverage types of patients over the age of 18 variable" showed the proportion of patients served by FQHCs over the age of 18 with specific types of insurance coverage. Patients were identified as individuals visiting an FQHC at least once in a reporting year (BPHC, 2016). This segment of FQHC's patient population was selected, as the study aimed to investigate the impact of the ACA on low-income adults served by these providers. Data collected for the variable "visits provided to patients" showed the number of visits provided to patients. A visit was classified as a patient having face-to-face contact with a licensed or credential healthcare provider (BPHC, 2016). This study collected the number of visits for overall services (included clinical and non-clinical services), medical services, mental health services, and dental services. Data collected for the variable "FTE of selected clinical employees" showed the annualized full-time

equivalent (FTE) of physician, physician assistants (PA), nurse practitioner (NP), nurses, and medical personnel. Data collected for the variable “revenue sources” identified patient coverage and grants received by FQHCs. Patient revenue data was based on the proportion of revenue collected from Medicaid, private insurance, and self-payers. It excluded patient revenue collected from public programs such as the Medicare (public health insurance coverage for the elderly) and CHIP program (public health insurance coverage for children). Revenue from grants was based on nominal value received in dollars (Bureau of Primary Health Care, 2016). This study converted the amount of federal grant received by FQHCs into real value.

All the data noted above was collected for the U.S. and the three states from 2008 to 2015. Additional information of the selected variables can be found in Appendix II.

### **3.5.1.2 Analysis of UDS data**

UDS data from the selected variables was manually extracted from the UDS website to a Microsoft Excel spreadsheet. The data set was complete and organized and did not require data cleaning. The manual process of transferring data from the website to a spreadsheet also ensured the data collected remained organized and complete. Analysis of the UDS data was accomplished by conducting a descriptive analysis of each selected variable. Descriptive analysis enables the exploration of data sets to provide a summary of measurements of the selected variables to describe what occurred in the sample (Blaikie, 2000; Thomson, 2009; Robson, 2011). In addition, descriptive analysis can be used to compare samples (Thomson, 2009).

Selected variables were organized in a frequency table, and again, all the data refers to the U.S., Arizona, California, and Texas for the years from 2008 to 2015. The frequency table for the variable “operating FQHCs” included the total number of operating FQHCs. A line graph was produced to show the changes in the number of operating FQHCs in the U.S. and each state during the time period. The variable “coverage types of patients over the age of 18” required

three separate frequency tables showing the proportion of adult patients with Medicaid, other third party insurance (private insurance), and no insurance. Three line graphs were then created to show the changes in the proportion of patients over the age of 18 with specific coverage types over the relevant time period. The variable “visits provided to patients” required four frequency tables—total visits, medical services, mental health services, and dental services. The frequency table included the total number of visits provided to patients per each service. Four line graphs were created to show the changes in the number of services provided by FQHCs to patients during the relevant time period. The variable “full time equivalent (FTE) of selected clinical employees” required five frequency tables—one for each respective clinician type. The value used was the total annualized FTE of the selected staff personnel (to the nearest whole number). Four line graphs were created to show the changes in the FTEs of the selected clinical personnel over the relevant period. The variable “revenue sources” required three frequency tables for revenue from patient coverage, and four tables for revenue for grants. The three frequency tables for patient coverage revenue were created using the proportion of collected revenue from Medicaid, private insurance, and self-payers. Three line graphs were then created for each respective table to show the trend over the relevant time period. Several frequency tables were created for federal (BPHC) grant revenues. As discussed previously, the total dollar amounts received by FQHCs from federal grant sources were presented (in the UDS dataset) in nominal value. These values were subsequently converted into real value using the consumer price index reported by the Bureau of Labor Statistics of the United States Department of Labor (2017) on the website: <https://www.bls.gov/>. Appendix III describes the process of converting the grant amounts from nominal value into real value. Four line graphs using the real value of grant revenue were then created.

The line graphs were the primary tools used to analyze the changes in trends for each of the variables. This method has been identified as an effective way to interpret and understand numerical data (Bryman, 2012; Simpson, 2015). Moreover, it allows the identification of changes occurring over the 7-

year time period among FQHCs in the three states, with regard to their patient coverage, visits provided to patients, workforce, and finance.

### **3.5.2 Semi-structured interviews: Understanding FQHC administrators' experienced under the ACA**

The interviews were the main source of data for this study. Interview data provides clarification, explanation, and additional insight from the experiences of experts on the social phenomena being investigated (Blaikie, 2000; Krauss, 2005; Boeije, 2010; Wahyuni, 2012)—in this case FQHC administrators and the impact of the ACA on FQHCs. According to Bradley (2007) and Ritchie and Lewis (2003), the analysis of qualitative data provides an opportunity to investigate the perspectives of individuals that have firsthand experience of the phenomenon being studied. For the purposes of this study, the administrators (executive directors and mid-level managers) were interviewed as they have unique knowledge of the impact of the ACA on their health centers. They also had experienced and responded to the changes it introduced. This allowed the study to better understand the ACA's impact on FQHCs ability to provide primary care to their patients. The next section discusses the ethics and process of how participants were selected, how the interviews were accessed and organized, and additional practicalities that affected the process of conducting the interviews. This section also discusses how the data source was analyzed.

#### **3.5.2.1 Ethics**

Before contacting participants and conducting interviews, the Self-Audit Checklist for Level 1 Ethical Review document for the University of Edinburgh School of Social Political Studies was completed. The completed document helped identify potential risks to participants and researchers. It was submitted to the Review Board and was approved. A consent form was created (see Appendix IV) for identified participants to obtain their informed consent to take part in the study (Ritchie & Lewis, 2003, Crow et al., 2006; Wahyuni, 2012). The consent form, which required the participants' signature, included information

about their role during the interview, whether they voluntarily agreed to take part with the study, and advised their consent could be revoked without any consequences at any time of the interview. Participants were informed that the study attempts to anonymize their identity. There is no guarantee absolute anonymity could be achieved, and participants were made aware of this (Ritchie & Lewis, 2003; Austin & Sutton, 2014). However, several steps were taken by the author to protect the anonymity of the participants. For example, codes identified each participant rather than their names or other information that could uncover their identity. The author was also the only person that communicated with participants when informing them of the project and setting up interview dates and times. An information sheet was also created and given to potential participants (see Appendix V). The information sheet provided information about the study, the types of questions to be asked during the interview, how the data would be used, and contact information.

While the study was classified as low risk in terms of potential harms to participants, all participants were sent the information sheet via email before they voluntarily agreed to be interviewed. The author then contacted them to clarify any questions they might have about the study before making the decision to take part. This ensured potential participants were aware of and understood what their participation in the study would involve (Ritchie & Lewis, 2003). In addition, all but two of the interviews were conducted on the premises of the participants' home organization during office hours (9:00 am to 5:00 pm). One interview was conducted via the telephone, and one was conducted in a coffee shop, as these were identified as most convenient for the relevant participants.

### **3.5.2.2 Selecting the sample**

Executive directors and mid-level managers were identified as the most appropriate representatives of the chosen FQHCs for the purpose of the interviews. It was important to include the chief executive officer (CEO) and other senior managers forming the executive team or the upper tier of the

leadership structure in the study as they oversee the strategic direction and financial management of the organization (Embertson, 2006). They can provide insights into the wider impacts of the reforms, and the actions taken or the strategies developed by their organization in response. Mid-level managers were also selected as they are situated several levels below the CEO/executive team and one level above the staff members responsible for providing healthcare services to patients (Floyd & Woolridge, 1992; Huy, 2001). Middle managers perform an important role in healthcare organizations as they support and guide staff members when performing the daily tasks essential for a functioning organization (Hayes, 2005; Embertson, 2006). They can provide insight and information that executive directors cannot, as they address day-to-day issues, make decisions that impact daily operation, and are informed about social structures and organizational strategies (Kilpatrick & Holsclaw, 1996; Parand et al., 2014). Moreover, as they can act as a bridge between operational staff members, clinicians and senior management, mid-level managers can provide a unique perspective on the topic (Embertson, 2006). By interviewing these two sets of leaders a range of perspectives and insights on the impact of the reform on their organization was obtained, and potential gaps in the knowledge of the respective groups were covered. Operational staff members (e.g., administrative assistants, clerks), clinicians, and other non-clinical staff members (e.g., outreach workers) were not included, as they do not directly implement strategies or have limited role in the process in the organization. Embertson (2006) posits that front line professional staff and clinicians are focused on providing treatment and caring for patients, thus limiting their capacity to play significant roles in making organizational decisions. In situations where clinicians have been involved with non-clinical initiatives, Weiner et al. (1997) found that physicians were more likely to be involved with quality improvement with the support of managers (Birken et al., 2015). Several scholars, in particular Lipsky, would argue against this perspective, making the case that clinicians, particularly doctors, are indeed part of decision making and the implementation process. Not including physicians limits the findings of this study, as it does not take into account the perspective of these



critical stakeholders. However, this study focused on understanding the perspectives of the executive directors and mid-level managers that had the specific responsibility of overseeing and directing the implementation of the ACA on their organization. Moreover, the experiences of other professional staff, clinicians, and to extent patients, can be observed through these administrators, as they interact with them in different capacities. For example, mid-level managers interact with other professional staff and clinicians on a regular basis to get feedback on critical issues regarding delivery of care, implement new strategies, provide resources, and support to ensure the organization is functioning (Embertson, 2006). According to Birken et al (2012, 2013) mid-level managers must continually interact with clinicians, non-clinicians, and to an extent patients (through the interaction of non-clinical staff with patients) to effectively implement new innovations being adapted in their site. This information is thus shared with executive directors to inform their decision-making and actions to the operation of the organization.

To identify potential participants, I initially evaluated my existing contact list of FQHC administrators. As discussed above, I previously worked at one of the largest FQHCs in the San Francisco Bay Area region. I also had contact details for administrators working in other FQHCs, as I was involved in several collaborative groups during my employment. While I did not have the same network contacts in Arizona, former co-workers, classmates, and professors provided the details of administrators from local FQHC administrators in both Maricopa and Pima Counties. Similarly, former co-workers and friends provided useful contact information for a number of Texan administrators. The FQHC system is a fairly tight-knit community and having contacts made it easier to be connected to the appropriate individual. In addition to utilizing my network, potential participants were identified by reviewing the staff pages of organizational websites. All of the selected FQHCs had a webpage that identified members of the executive team and their organizational roles. My aim for this study was to interview one member of the executive team and one member of middle management in every FQHC.

Once the appropriate individuals were selected, email was used to primarily establish communication with them. The chosen FQHCs' websites provided email addresses for some executive directors and both email addresses and direct phone numbers in some instances. For some FQHCs direct contact was unavailable and had to be accomplished through personal assistants. Initial contact with executive directors was made through an email describing the project, with an attached information sheet, and requesting participation. The average wait-time for a response was 2 to 3 weeks. If responses were not received after the third week, another email was sent. Overall, the process of contacting executive directors via email was effective, as the majority responded. If directors failed to respond to the second email within several days, a phone call was made if a number was available. This was generally fruitful, depending on the day and time the call was made. Speaking to a personal assistant was often better, as they knew their directors' schedules and were willing to help. The majority of directors who were interested in the project responded requesting a pre-arranged telephone conversation via their direct telephone number. Alternatively, the director's personal assistant would respond, before arranging a telephone conversation. This second stage of communication with the directors was used to discuss the study and answer any questions they had regarding potential participation. The conversations invariably ended with receipt of verbal agreement to participate and the arrangements for the interviews. Some directors instructed me to contact their personal assistants to set up the interview. Table 3.1 shows the number of directors contacted and interviewed in each state. A total of 15 directors were contacted and a total of 11 were interviewed. Generally, directors were willing to take part.

Identifying mid-level managers proved more difficult, as the majority of organizational websites did not identify them or include their contact information. In these instances, the search function of the website LinkedIn—a social network for professionals—was used. Once candidates were identified, a message describing the project was sent through LinkedIn. Alternatively, a general web search was conducted using their name and organization. These

searches were generally effective as online articles, such as organizational newsletter or outreach flyers, often included their contact information. After identifying mid-level managers, again contact was made via email if possible, or by telephone. Establishing communication with mid-level managers via email was inefficient, as the majority did not respond to the request. Speaking to managers over the phone was more effective as they could engage in a more in-depth conversation about the project and ask questions. After these conversations, a follow-up email was sent, providing the information sheet. If the manager accepted an interview request, the meeting was set up by telephone or email. If a mid-level manager in an organization could not be located or contacted, the snowballing technique was used during an interview with an executive director. The snowballing technique is described by Ritchie and Lewis (2013) as asking an interviewee to identify further people who may be appropriate for the study. Asking executive directors to identify mid-level managers that could be interviewed was effective, as they were aware of the most appropriate potential participants and could provide contact information. A total of 16 managers were contacted and a total of 12 took were interviewed (see Table 3.1).

**Table 3.1: Interview sample**

<b>Role</b>	<b>Number contacted</b>	<b>Number interviewed</b>
Executive director	15	11
Middle manager	16	12

Although the majority of contacted administrators agreed to take part, some could not due to time constraint or decided against it. For example, one director who responded could not take part due to major organizational restructuring, referring me instead to a mid-level manager. One director responded through their personal assistant, declining the request. Another director who agreed to take part in the initial telephone conversation then decided to decline the request. Others, particularly mid-level managers failed to respond via email or telephone, even after several attempts to establish contact had been made. A total of 23 administrators (11 directors and 12 mid-level

managers) were interviewed. Table 3.2 provides a list of the interviewed administrators and their roles in their organizations.

**Table 3.2: List of interviewed administrators, assigned identity code, and roles**

<b>Arizona FQHCs</b>		
<b>FQHC Identification</b>	<b>Administrator code</b>	<b>Administrator role</b>
AZFQHC1	AZ Director 1	Executive director
AZFQHC2	AZ Director 2	Executive director
AZFQHC3	AZ Manager 1	Mid-level manager
AZFQHC3	AZ Manager 2	Mid-level manager
AZFQHC3	AZ Manager 3	Mid-level manager
AZFQHC4	AZ Director 3	Executive director
AZFQHC4	AZ Director 4	Mid-level manager
<b>California FQHCs</b>		
CAFQHC1	CA Director 1	Executive director
CAFQHC1	CA Manager 1	Mid-level manager
CAFQHC1	CA Manager 2	Mid-level manager
CAFQHC2	CA Director 2	Executive director
CAFQHC2	CA Manager 3	Mid-level manager
CAFQHC3	CA Director 3	Executive director
CAFQHC3	CA Manager 4	Mid-level manager
CAFQHC4	CA Director 4	Executive director
CAFQHC4	CA Manager 5	Mid-level manager
<b>Texas FQHCs</b>		
TXFQHC1	TX Director 1	Executive director
TXFQHC1	TX Director 2	Executive director
TXFQHC1	TX Manager 1	Mid-level manager
TXFQHC2	TX Director 3	Executive director
TXFQHC2	TX Director 4	Executive director
TXFQHC2	TX Manager 2	Mid-level manager
TX non-profit	TX Manager 3	Mid-level manager

### 3.5.2.3 The interview process

The interviews were mainly conducted face-to-face in the administrators' organizations in Arizona, California, and Texas between July and September 2014. As mentioned earlier, one interview took place in a coffee shop, in which the executive director was available to assist between meetings, while another took place over the telephone. The telephone interview was not ideal.

Technological challenges, including a poor signal, made it difficult at times to understand the responses. However, an additional executive director and mid-level manager from the same organization were interviewed. Most of the

interviews were conducted on the premises of participants' home organizations, within an office or conference room. These were the ideal places to conduct the interviews, as outside noise and distractions were minimized. After a brief introduction, each participant was given two documents to review—the information sheet provided earlier via email, and a consent form. Participants were given several minutes to read over the documents and the opportunity to ask additional questions about the project. Prior to the interview, participants were asked to sign the consent form, and these were collected from each participant. In respect of the director interviewed by telephone, the consent form was received beforehand via email. The consent form advised that a tape recorder would be used during the interview, and everyone stated they were comfortable being recorded. The device remained in front of them for the duration of the interview.

Generally, a rapport quickly developed between the participants and myself, assisted by my previous experience of working within the FQHC environment. Interviewees were often interested to learn of my work during and after I left the position. This made it easy to begin the interview. The interview schedule used in the interviews (see Appendix VI) was developed after conducting the literature review and the development of the two logic models. The questions focused on the overall impact of the ACA on their FQHCs the last 5 years, challenges and opportunities experienced as a result of implementing the ACA, and strategies their organization had adopted to meet the needs of their patients under the reform. The interviews were semi-structured, the design being selected as it provides the opportunity to establish a broad set of topics; ensuring relevant issues are systematically discussed with all participants (Ritchie & Lewis, 2003; Robson, 2011). Follow-up questions were included to ensure the discussed topics were thoroughly explored (Ritchie and Lewis, 2003). The open-ended structure of the interview schedule was effective for the data collection process, as it allowed the exploration of unique details from specific participants, provided the opportunity for clarifications and/or additional explanations (Robson, 2011). The interview schedule was placed in front of the researcher, as it guided the session.

Participants were keen to discuss the research topic. The majority of participants had much to say about the reform and its impact on their organization, strengthening their statements by including examples from their daily work experiences. Most administrators needed very little encouragement to provide details, but in some cases the probing questions guided them towards more relevant topics. The interviews typically lasted around 60 minutes. Twenty-two of the interviews were conducted one-on-one. One interview session was conducted with two mid-level administrators, as this arrangement was convenient for both of them. While both participants had the opportunity to share their perspectives, one administrator was more outspoken. According to (Goldman & Swayze, 2012) conducting interviews with elite populations may be challenging, as they may attempt to control the interview. Others may feel defensive, anxious, or less engaging (Sabot, 1999). This was found not the case in these interviews. To an extent, my knowledge and work experience of FQHCs encouraged administrators to be forthright when sharing information, as I suspected they know of my comfort level about the topics they discussed.

At the end of the interviews, the majority of the participants offered or confirmed their contact information and stated they could provide additional information as needed. After each session, I reflected on the interview and made notes on the experience. I identified key topics that were extensively discussed as well as any new information revealed.

#### **3.5.2.4 Analysis of interview data**

A verbatim transcript of each of the recordings was completed after each interview. Wahyuni (2012) suggested completed transcripts should be reviewed by listening to recordings again to ensure accuracy. Personally transcribing the recordings enabled easy crosschecking of the transcripts' accuracy. All transcripts were uploaded to the qualitative analysis software QSR NVivo 10.

The analysis of the interview data was guided by thematic analysis. The first stage in thematic analysis is ‘breaking down’ the data by identifying obvious and subtle ideas and concepts by placing them in categories and sub-categories (Straus & Corbin, 1990; Vaismoradi, Turunen and Bondas, 2013). The first stage required extensive reading and re-reading of the transcripts, generating large amount of categories and sub-categories, as discrete incidents, ideas, actions, or thoughts were given a label (Pope, Ziebland and Mays, 2000). According to Blaikie (2000), this process is an essential step as it organizes the data. I accomplished the task through an inductive process, reading each line in detail and assigning a code once a concept emerged (Bradley, Curry and Devers, 2007). This process generated a large list of codes (See Table 3.3). There were times when pieces of data could not be easily coded. These were placed in a separate category and returned to later, to determine if it could then be included under a specific code or whether a new code needed to be included.

**Table 3.3: Generated codes from interview data**

Codes	
•	Administrative burden from private insurance
•	Administrators perspective on ACA impact
•	Challenges with accessing primary care
•	Challenges with accessing secondary care
•	Challenges with enrollment system
•	Challenges with hiring staff
•	Demand for primary care
•	Demand for secondary care
•	Enrollment strategies
•	Expansion of physical growth (FQHC)
•	Expansion of operational hours (FQHC)
•	Expansion of departments (FQHC)
•	Factors that help with growth- More insured patients
•	Factors that help with growth- Additional revenue
•	Factors contributing to staff expansion
•	General comment about coverage expansion
•	General comment about growth (FQHC)
•	General comment about expanding staff (FQHC)
•	General comment about strengthening primary care
•	Increase accountability from government
•	Integration of eservices
•	Local policies- Arizona
•	Local policies- California

- Local policies- Texas
- Electronic Medical Records and other technologies
- Environmental influences- Arizona
- Environmental influences- California
- Environmental influences- Texas
- Environmental- National
- State policies- Arizona
- State policies- California
- State policies- Texas
- Medicaid coverage
- Number of people enrolled in insurance
- Payer-mix under the ACA
- Payment reform
- People's limited knowledge of insurance plans
- People's limited knowledge on healthcare use
- Private insurance coverage
- Reason why FQHC is growing- community need
- Reimbursement rate from Medicaid
- Reimbursement rate from private insurance
- Serving everyone
- Staff challenges with enrollment process
- Staff strategy to teach about insurance plans
- Strategies to attract staff
- Strategies to meet demand for care
- Type of staff needed
- Uninsured coverage

The second step in the coding process was reviewing the codes and sub-codes, and identifying relationships to form themes (Blaikie, 2000; Vaismoradi et al., 2013). Recurring unifying concepts identified from the codes and sub-codes provided guidance when doing so (Bradley, Curry and Devers, 2007; Curry, Nembhard and Bradley, 2009). The research question and objectives of this study provided guidance when developing the main themes, of which four were generated: (1) Growth of FQHCs; (2) Patient coverage; (3) Primary and Secondary Care (from FQHCs); and (4) Regional Factors (see Table 3.4). Each theme provided an explanation for certain aspects of the studied phenomenon. While I developed all the codes and themes during the analysis process, ongoing discussions, refining the generated codes and themes took place in supervision meetings.



**Table 3.4: Generated themes and sub-themes from interview data**

Key themes from interviews	Sub-themes from interviews
I. Growth of FQHCs	<ul style="list-style-type: none"> <li>• Physical growth</li> <li>• Staff/ Department growth</li> <li>• Administrative</li> </ul>
II. Patient coverage	<ul style="list-style-type: none"> <li>• Insurance plans</li> <li>• Enrollment</li> <li>• Revenue and patient coverage</li> <li>• Financial implications</li> </ul>
III. Primary and secondary care (from FQHCs)	<ul style="list-style-type: none"> <li>• Demand for care (both primary and secondary)</li> <li>• Strengthening primary care</li> <li>• Strengthening integrated care</li> <li>• Improving access to specialty care</li> </ul>
IV. Regional factors	<ul style="list-style-type: none"> <li>• Policies- local, state, national</li> <li>• Environmental factors- local issues (i.e., population change)</li> </ul>

### 3.6 Chapter Summary

This chapter described the multi-method approach of using quantitative and qualitative data in the multiple case study pursued by this research project. A discussion of my background and the research philosophy guiding this study was presented, as this influenced the overall design, data collection process, and analysis of the selected approach. A thorough discussion of the reasons for using a multiple case study approach was presented, and the process of selecting FQHCs in the three states. The multiple case study approach was deemed appropriate for this study, as it would help to understand the impact of a complex contemporary issue affecting FQHCs by collecting and analyzing both qualitative and quantitative data. The mixed-method approach was also used through the analysis of numerical data from UDS and interview data from FQHC administrators were used. Combining the an analysis of both data sources enabled this project to have a richer and more extensive understanding of the

impact that the ACA made on FQHCs' ability to provide care to low-income populations.

The following sections provided a more in-depth discussion on how the two data sources were collected and analyzed. The quantitative data used in this study was obtained from the Uniform Data System (UDS). The UDS is managed by the Health Resources & Services Administration and is a standardized reporting system for FQHCs in the nation to report information about their organization. Several variables were selected from UDS for FQHCs in Arizona, California, and Texas and descriptive analysis was performed. The aim of the analysis was to provide additional contextual information for the study by understanding the changes in the selected variables during the implementation of the ACA. The process produced frequency tables and diagrams to describe changes and trends experienced by FQHCs between 2008 and 2015 across various aspects of their operations. This information made it possible to understand the impact of the ACA on FQHCs in Medicaid expanded states and non-expanded states and how it could reflect on the local level.

The qualitative data used in this study was obtained by conducting semi-structured interviews with FQHC administrators. Twenty-three semi-structured interviews were conducted with administrators from ten FQHCs in Arizona, California, and Texas. Administrators selected for the interviews represented executive directors and mid-level managers, as they were deemed able to describe the impact of the ACA on their FQHCs due to their job responsibilities. Moreover, they were perceived to be the most appropriate staff members to describe their health center's response to the reform. The analysis of the qualitative data was accomplished by conducting a thematic analysis. The process produced large amounts of codes that were used to identify key themes that would contribute to this study's findings.

The information gained from analyzing qualitative and quantitative data provided the opportunity to better understand the research aim of this study. Each data sources provided a different perspective on the ACA's impact on FQHCs. For example, the analysis of the UDS data provided contextual information about the changes in resources, service delivery and patient

coverage experienced by FQHCs in the three states under the ACA. This information was used to guide the collection and analysis of qualitative data from interviews with administrators on the local level. The analysis of interview data provided insight on whether FQHCs in the local level indeed experience these changes found from the analysis of UDS data. However, the interview data also provided a richer and extended account of the policy's impact on these providers and how they responded to it. As a result, this study was able to gain a more holistic account of the ACA's impact on FQHCs at the local level.

# **Chapter 4: Results**

## **Impacts of The ACA on case study FQHCs**

### **4.1 Introduction**

Chapter 2 presented two logic models that mapped out the key mechanisms of the ACA and their impact on FQHCs. Both models showed the key mechanisms of the policy, with the first providing their anticipated impact on these providers and the second highlighting the differences in their actual impact once in practice—differences due mainly to a major change in the policy design allowing Medicaid expansion to be optional for states. Logic model 2 also shows that FQHCs in states where Medicaid was expanded experienced different outcomes from those in non-expanded states. This chapter further explores the impact the ACA had on FQHCs in Medicaid-expanded states located in Arizona and California in comparison to FQHCs in a non-expanded Texan state. It specifically explores how the ACA affected FQHCs in the three states by examining the changes in their patient insurance coverage, demand for care, and revenue through an analysis of state-level data obtained from UDS. This showed how the policy affected these providers from 2008 to 2015, and provided important context, helping to gain an understanding of the experiences of local FQHCs in the selected states through the perspectives of administrators.

The chapter begins in Section 4.2 by presenting the impact of the ACA on FQHC's patient coverage in the expanded states Arizona and California and in the non-expanded states Texas, based on an analysis of state-level data obtained from Uniform Data Systems. This provides contextual information, showing how the ACA in the three selected states affected their patient coverage from 2008 to 2015 and whether it did in fact cause different outcomes to occur. This

section is followed by section 4.2.1, which presents the perspectives of FQHC administrators in the three states. The interviews provide local-level insight into how the policy impacted FQHCs and the extent it supports findings from analysis of the UDS data. The chapter continues in section 4.3 describing the impact of the ACA on FQHCs' demand for care in the three states through the analysis of UDS data. Section 4.3.1 presents the findings from the analysis of interview data from administrators on this topic. Section 4.4 presents the impact of coverage expansion and the enhanced federal funding on FQHCs' revenue in the three states. The discussion about how FQHCs revenue changed under the ACA continues in section 4.4.1. It presents the findings from the analysis of UDS data regarding the changes in patient coverage revenue from Medicaid, private insurance, and self-payers. Section 4.4.2 presents the changes experienced by FQHCs in the three states with regards to their revenue from federal grants. Section 4.5 presents the impact of the reform on revenue from coverage expansion. Section 4.5.1 presents the changes experienced by administrators from the three states with regards to their revenue from grants. This chapter ends in section 4.6 with a chapter summary.

## **4.2 Impact of the ACA on FQHCs' patient coverage in Arizona, California and Texas according to UDS data**

This section presents the findings from analyzing state-level UDS data from Medicaid expanded states (Arizona, California) and a non-expanded state (Texas) to gain insight on how the implementation of coverage expansion (taking effect in January 2014) impacted FQHCs' patient coverage. The analysis examines the proportion of patients identified as being 18 years of age or older and reported as being covered by Medicaid, private insurance, or none/uninsured from 2008 to 2015. According to the analysis of the UDS data from the three states, the proportion of patients that were 18 years of age and older with Medicaid was stable from 2008 to 2013 (see Figure 4.1). FQHCs in the three states also showed a general trend of serving more patients with the coverage type after coverage expansion took effect from 2013 to 2015.

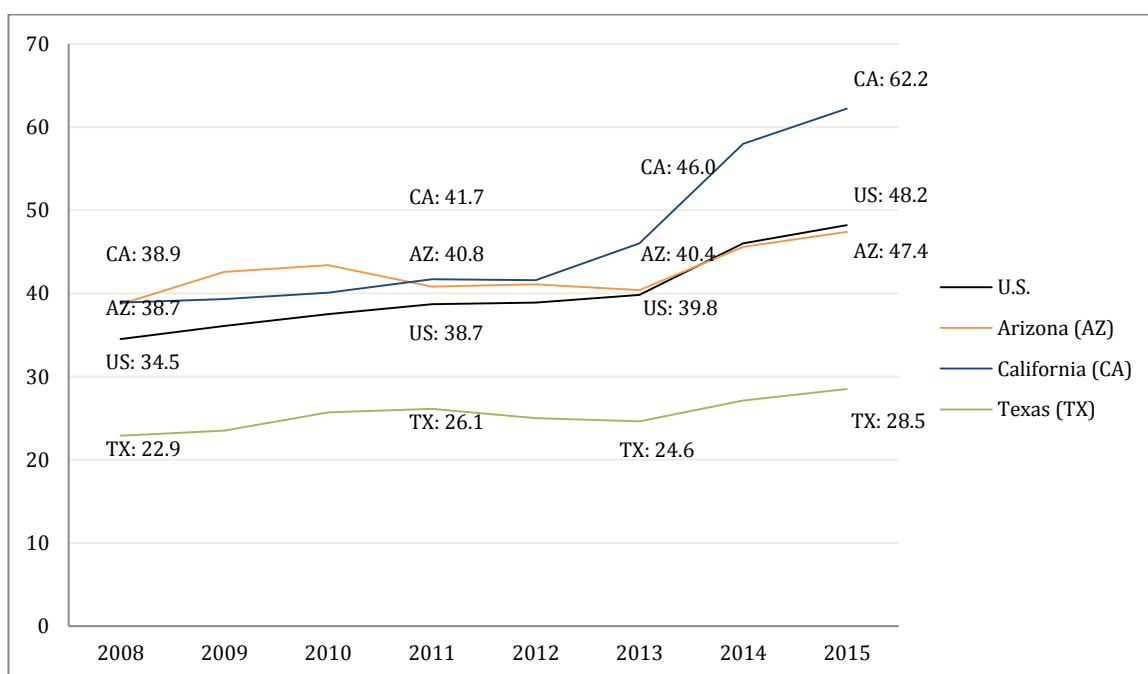
However, the proportion of FQHCs patients age 18 and older that were covered by Medicaid significantly increase for FQHCs in Arizona and California compared to Texas from 2013 to 2015 (see Figure 4.1). For example, the proportion of FQHC patients (aged 18 and older) covered by Medicaid in Arizona increased by 7 percentage points, while it increased by 16.2 percentage point in California between 2013 and 2015. By contrast, the proportion of FQHC patients (aged 18 and older) covered by Medicaid in Texas increased by 3.9 percentage points during the same time period (see Appendix VII for a further explanation of the trends in Medicaid coverage).

Another set of coverage type that this study investigated was the change in proportion of FQHCs patients with private insurance. Several scholars (Cunningham, 2005; Hennessey et al., 2013; Saloner et al., 2014) predicted that FQHCs would experience an increase in serving Medicaid patients after coverage expansion took effect. However, it was unclear how the expansion of private insurance would impact FQHC patients without coverage. There was limited discussion on how the expansion of private insurance would impact these FQHC patients. Analysis of UDS data from the three states suggests the proportion of FQHC patients' age 18 and older who were covered by private insurance increased only very slightly in Arizona and California after coverage expansion took effect, but underwent a slightly greater increase in Texas (see Figure 4.2). The proportion of FQHC patients aged 18 and older covered by private health insurance increased by 1.5 percentage points in Arizona, while in California it increased by 2.2 percentage points between 2013 and 2015. By contrast, in Texas, the proportion of FQHC patients age 18 and older covered by private insurance increased slightly more—by 5.7 percentage points during the same time period (see Appendix VII for a further explanation of the trends in private insurance coverage).

The ACA was expected to cause the uninsured rate in the U.S. to decrease, as a result of coverage expansion (Buettgen and Hall, 2011). Therefore, it was also expected that FQHCs would experience a decline in the proportion of

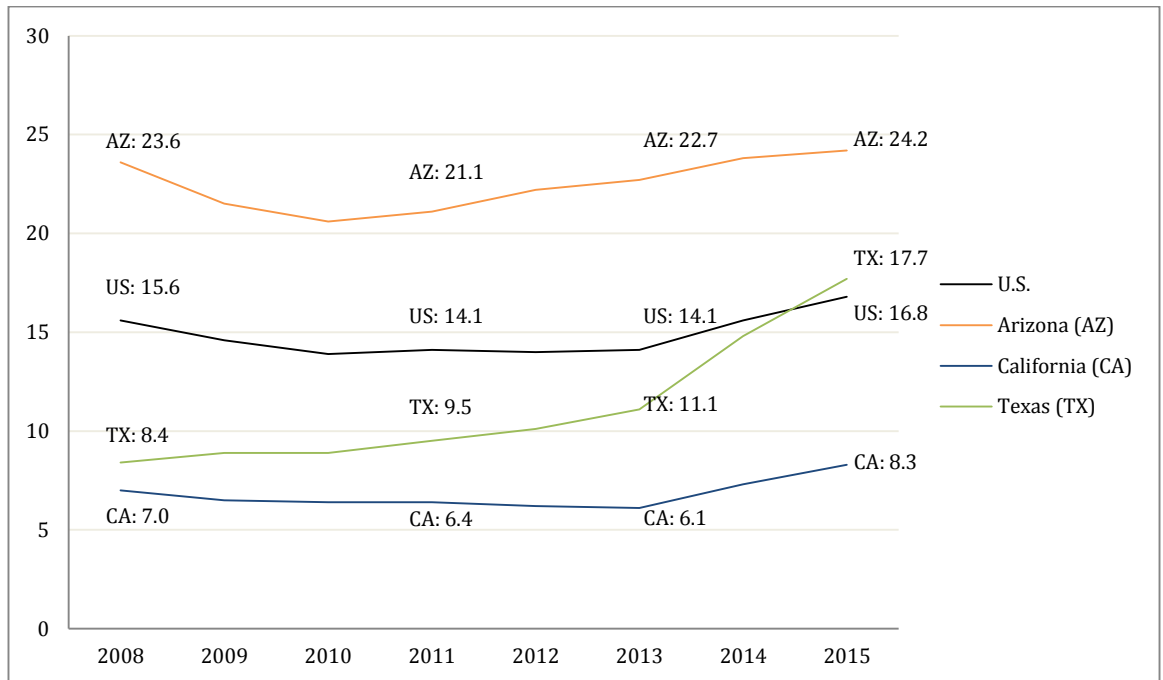
patients served who were uninsured (Shin et al., 2014). An analysis of UDS data from Arizona, California and Texas from 2008 to 2015 shows FQHCs experienced a steady decline in the proportion of uninsured patients served aged 18 and older since 2008 (see Figure 4.3), with an accelerated decline in the proportion of uninsured patients in this age group between 2013 and 2015 (i.e. following implementation of the ACA). For the 2013-2015 period, UDS data shows that FQHCs in Arizona experienced an 8.9 percentage point decline in the proportion of their patients who were uninsured; FQHCs in California experienced a 16.1 percentage point decline; and those in Texas had a 9 percentage point decline in uninsured patients (see Appendix VII for further explanation of the trends in the numbers of the uninsured). Interestingly, the analysis of UDS data showed that FQHCs in Arizona and Texas experienced about a 9-percentage point decline in the proportion of uninsured patients they served, yet FQHCs in Arizona still served a significantly lower proportion of uninsured patients than those in Texas.

**Figure 4.1: Proportion of FQHC patients' ages 18 and older covered by Medicaid in the U.S., AZ, CA, and TX, 2008-2015**



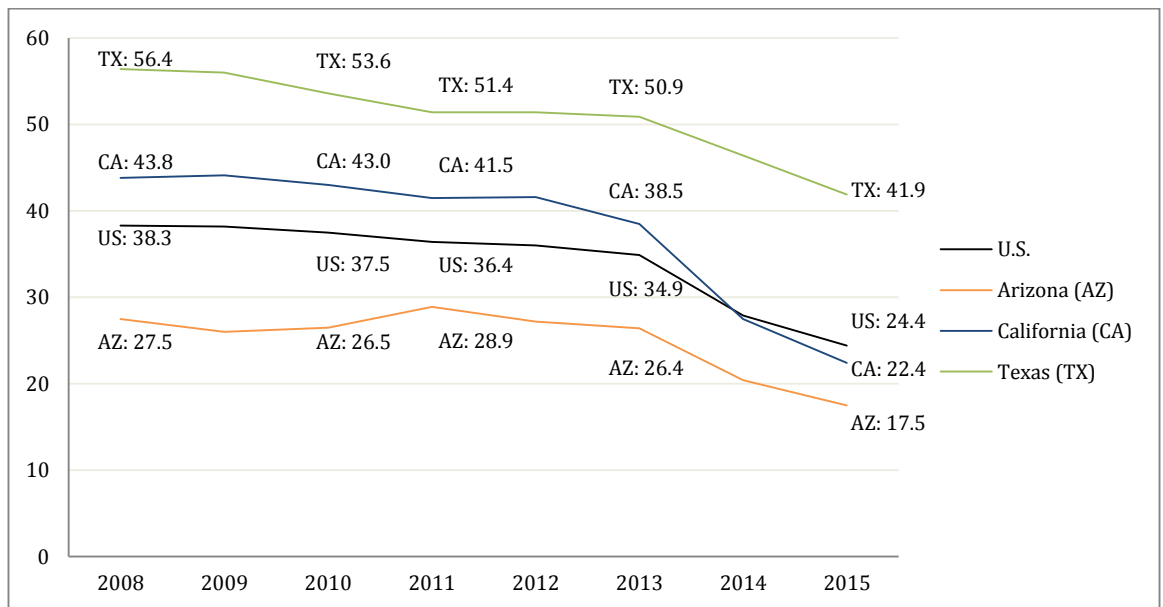
Source: UDS data, 2008-2015

**Figure 4.2: Proportion of FQHC patients' ages 18 and older covered by private insurance in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

**Figure 4.3: Proportion of FQHC patients' age 18 and older who were uninsured in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015



#### 4.2.1 The ACA's impact on patients' health insurance coverage according to administrators

The analysis of UDS shows that FQHCs in all three states saw changes in the coverage held by their patients after the enactment of the policy. FQHCs in the three states all saw increases in Medicaid coverage by their patients. However, FQHCs in Arizona and California saw a much higher increase than FQHCs in Texas. All the FQHCs in the three states experienced minimal increase in the proportion of patients with private insurance, but Texas experienced a slightly higher rise than Arizona and California. FQHCs in the three states were also found to continue serving a sizeable proportion of uninsured patients. The data from the semi-structured interviews with administrators from the selected FQHCs provided a more in-depth account of the impact of the ACA on their patient coverage in the local level. The following section first presents the analysis of interview data from Arizonan and Californian administrators regarding the impact of coverage expansion as they had similar perspectives. It is then followed by the analysis of interview data from Texan administrators.

All the administrators (n= 16/16) from small and large FQHCs in Arizona and California noted that coverage expansion caused a change in their patients' health insurance coverage. Perceptions on how coverage expansion impacted patient's coverage were fairly similar between executive and mid-level managers. They specifically identified that Medicaid expansion caused this change. According to the majority of Arizonan administrators (n= 4/7) and all of the administrators from California (n= 9/9) most of their newly insured patients gained coverage from Medicaid expansion. **AZ Director 2** stated he has *"seen [their] payer mix of Medicaid patients increase because more adults have Medicaid"*, noting that, prior to the ACA, the percentage of patients they served without health insurance coverage accounted was 35 to 40 percent, while 50 percent of patients now had coverage from Medicaid. After coverage expansion took effect, the proportion of patients with Medicaid increased to 60 percent, while the proportion of uninsured patients fell to 25 percent. Similarly, Californian administrators pointed to Medicaid expansion as the measure with

greatest impact on their uninsured patients, as it enabled many of them to gain coverage from the program. **CA Manager 5** stated:

*“California was very lucky to do the expanded Medi-Cal (state Medicaid program). More people are qualifying for Medi-Cal and those people are reaching the community clinics (FQHCs).”*

According to **CA Manager 2** of CAFQHC1, 40 to 50 percent of their patients had coverage from Medicaid prior to the implementation of coverage expansion, and 60 percent after the expansion took effect. The proportion of patients without health insurance coverage served by CAFQHC1 was reported to have fallen to 20 percent. All CAFQHC2 administrators were highly positive about the impact of Medicaid expansion as they experienced a significant increase in the proportion of their patients obtaining Medicaid. The implementation of the expansion also caused the proportion of patients they served without coverage to fall:

*“For years and years, we’ve had upwards of, you know, about 30 to 40 percent of our patients [that] were totally uninsured. And now that number has come down to 19 percent. So—[a] double-digit drop in the number of uninsured patients that we are seeing [and] are converting over to be Medi-Cal (Medicaid) patents.”* **CA Director2**

**CA Director 4** of CAFQHC4 had a positive perception of coverage expansion, given the increased proportion of their patients gaining coverage from Medicaid. The director reported Medicaid expansion caused the proportion of their patients with Medicaid to increase by 10 to 15 percent. As a result, the total proportion of their patients with Medicaid grew to 45 percent.

The analysis of the UDS data suggests that FQHCs in Arizona and California experienced minimal increase of serving patients gaining private insurance. The analysis of interview data from the majority of executive- and mid-level managers from small and large FQHCs believed the impact of the ACA’s attempt to expand private insurance was less significant. This was due to a small percentage of their uninsured patients gaining coverage from it. According to **AZ Director 2**, from a large FQHC, “saw it (the impact of the ACA on private

insurance) less clear how many of [their] patients went from sliding fee scale (self-payer/uninsured patients) to commercial insurance (private insurance)". An executive director from another large FQHC in the state also reported minimal gains in the number of newly insured patients with private insurance.

According to **AZ Director 1**:

*"We haven't seen a lot of people that have marketplace insurance (private insurance). About 12 to 15 percent [of patients] are privately insured so they would fall into that category, and we have not seen a big movement in that category."*

Mid-level managers from both small and large FQHCs in Arizona were unable to provide estimates of their patients gaining private insurance. However, they also believed that patients were less likely to gain coverage from private insurance.

As in Arizona, the majority of executive directors and mid-level managers from small and large FQHCs in California reported minimal impact from the expansion of private insurance. **CA Manager 2** of CAFQHC1 reported that prior to the enactment of the ACA, the total proportion of patients with private insurance served in their organization was much lower than the proportion of patients with Medicaid. According to her estimate, it only accounted for 13 percent of patients' health insurance coverage in their FQHC. However, after the implementation of the policy, the percentage of patients with private insurance served by their organization did not change much. CA Director 3 and CA Manager 4 from CAFQHC3 also reported their FQHC was minimally impacted by the expansion of private insurance. According to their estimate, the expansion of private insurance caused the proportion of their patients with private insurance to increase by 5 percent. However, CA Manager 4 believed it might increase further in the following year, as some of their current patients with Medicaid might convert to being covered by private insurance.

Common among all of the administrators from Arizona and California was the belief that Medicaid expansion had a greater impact on their uninsured patients than the expansion of private insurance. Coverage expansion caused all the selected health centers- whether it had a small or large patient population-

in the two states to experience an increase in newly insured patients with Medicaid, and minimal gains in newly insured patients with private insurance. All of them also experienced a decline in uninsured patients as a result of gaining more newly insured patients with Medicaid. All the Californian administrators (executive directors and mid-level managers) identified the implementation of Medicaid expansion as a key element of the ACA, causing them to gain more Medicaid-insured patients. Several of the Arizonan administrators (both identified as an executive director and mid-level manager) acknowledged that the decision of their state government to expand Medicaid, and particularly the support of their Republican governor, had a major impact on their ability to gain more insured patients with the coverage type. However, the analysis of interview data highlights that FQHCs in Arizona and California significantly varied in the proportion of gaining newly insured patients with Medicaid. Some health centers experienced a 10-percent increase while others experienced a 15- to 20-percent increase of their patients gaining Medicaid. Moreover, FQHCs continued to experience different reductions in the proportion of uninsured patients they served.

Although FQHCs in Arizona and California benefitted from their state government's decision to expand Medicaid, local level factors also influenced how extensive FQHCs would be affected by it. For example, administrators acknowledged that changes in the population demographic of their neighborhoods affected their ability to gain more Medicaid patients. According to AZ Director 1, the neighborhood they served located in Pima County did not have high-uninsured population. *"The demographics we are dealing with aren't as highly uninsured like some other health centers"* **AZ Director 1**. As a result, his health center did not particularly experience an increase in newly insured patients. AZ Director 4 from Maricopa County specifically acknowledged that local decisions regarding the expansion of the Phoenix Sky Harbor International Airport a few decades ago caused their neighborhood to completely change. According to her, this caused the demographics of the neighborhood they served to significantly change causing them to serve higher proportion of uninsured patients that were less likely able to gain Medicaid due to their

immigration status. The extension of Medicaid thus was not relevant to their patient population. This caused the FQHC to have “30 percent of [their] patients to [be] insured and most of those are insured through the Medicaid program and the other 70 percent are uninsured” (**AZ Director 4**).

Another local factor that affected FQHCs’ intake of newly insured Medicaid patients was the willingness of non-FQHC providers to accept these patients. Chapter 2 discussed that many non-FQHC primary care providers limited their acceptance of new patients with Medicaid compared to FQHC providers. The analysis of the interviews suggests the majority of executive and mid-level managers from small and large FQHCs in Arizona and California agreed with this. The willingness of other primary care providers in the region—especially non-FQHC providers—to accept newly insured Medicaid patients greatly affected all of them. Two executive directors and one mid-level managers from large FQHCs in Arizona specifically discussed how they gained more newly insured Medicaid patients because other primary care providers limited the number of new patients they accepted with Medicaid, or did not accept any new patients with the coverage:

*“Now [in] the private physician area, there’s only been some physicians that take Medicaid but there’s some that take very limited or no Medicaid [patients]. We have seen some [private] physicians drop out and go in concierge medicine. So we have gained some patients that had private insurance [as] their physicians stop taking all insurances and just [accept] cash pay only. So we see more patients come in to our clinics that have Medicaid or even private insurance that left their provider because of that . . . the provider said they were tired of dealing with insurance and Medicaid/Medicare. They just want to take care of the patient.” **AZ Director 1***

Three executive directors and two mid-level managers (n = 5/9) from California also acknowledged the increase of serving Medicaid patients may be due to other local primary care providers’ decisions to not accept or to limit the number of new patients they accepted with the coverage. According to CA Director 2 from CAFQHC2, “Nobody is really taking Medi-Cal (Medicaid) anymore. So Medi-Cal assignees are now overwhelmingly being assigned to

*Federal Qualified Health Centers.*” A mid-level manager from the same FQHC added:

*“In general, with the number of providers no longer [taking] Medi-Cal patients . . . People have become a lot more open to the role of the Federally Qualified Health Care clinics because there are limited primary care private physicians who will take Medi-Cal and, in some cases, Medicare patients.” CA Manager 3*

The analyses of the interview data from all the Texan administrators from both FQHCs believed the lack of Medicaid expansion caused them to be minimally impacted by coverage expansion and to an extent, the ACA. Most of their uninsured patients were low-income and could not afford to purchase private insurance from the marketplace, even with the possibility of receiving subsidies from the federal government. A manager from the large FQHC (TXFQHC1) stated, as a result of Texas not expanding Medicaid, *“there’s [only] a small number of patients that now have insurance” TX Manager 1.*

According to two executive directors and a mid-level manager (TX Directors 1 and 2, and TX Manager 1) from TXFQHC1, the proportion of new patients with private insurance increased by around 5 percent. By comparison, a director from a much smaller FQHC in the County (TXFQHC2) also reported a minimal increase in newly insured patients with private insurance:

*“But for folks who qualified for the ACA plans (marketplace private insurance), four hundred some odd [patients] and at the moment we have we...only [have] about 3.7...3.8 of our total [patient] population” TX Director 3.*

A common view among Texan administrators (both executive director and mid-level managers) was that many of their low-income uninsured patients would remain uninsured under the ACA as a result of not expanding Medicaid:

*“67ish percent of our folks (patients) fall below 100 percent of federal poverty, and so there’s no coverage for them since we didn’t expand Medicaid. We have a ton of folks who fall into the [coverage] gap . . . If we adopted the Medicaid expansion they would have qualified for Medicaid.” TX Director 3*

The majority of administrators did not acknowledge any specific local factors that contributed to either helping or hindering their patients gain coverage under the ACA. Four of the executive directors from both FQHCs acknowledged that their county's population had significantly increased for several years prior, causing more people to seek care from them. However, the directors did not perceive the county's population growth affected the ability of uninsured patients to gain coverage. Rather, the decision of the state not to expand Medicaid made it difficult for uninsured people to gain coverage especially if they could not obtain private insurance from the marketplace.

#### **4.3 The impact of the ACA on patient demand for care from FQHCs in Arizona, California, and Texas according to UDS data**

The Uniform Data System (UDS) does not directly collect data from FQHCs that specifically report patients' demand for care. However, the UDS annually collects information regarding the number of visits by patients in the different services categories offered by FQHCs (BPHC, 2016). This section presents an analysis of data in respect of patient visits for overall services (see Appendix VIII for a list of all the services included in the "overall services"), medical, dental, and mental health services from 2008 to 2015. The purpose of this is to determine how the amount of patient visits for selected services changed over time for FQHCs in the state level, and if the enactment of the policy caused any significant changes. The information provides insight on how demand has changed over time for FQHCs in the three states.

An analysis of UDS data from Arizona, California, and Texas shows FQHCs increased the total number of overall services provided to patients every year between 2008 and 2015 (see Appendix IX, Figure 2). It is unclear how much the ACA contributed to this trend. However, further analysis of UDS data for the 4-year time period from 2011 to 2015 reveals that Arizona and California showed greater increases in the total number of overall services provided between 2013 and 2015 (after coverage expansion was implemented) than between

2011 and 2013 (before coverage expansion was implemented). Arizonan UDS data shows the total number of overall services provided to patients increased by only 175,558 between 2011 and 2013, whereas the total number of overall services provided from 2013 to 2015 increased by 280,601. Californian UDS data shows the total number of overall services provided to patients increased by 1,613,676 between 2011 and 2013, and by 3,179,212 between 2013 and 2015.

UDS data from Texas show a different trend, suggesting that FQHCs provided more services between 2011 and 2013, with an additional 449,766 overall services. This increased by only 325,250 between 2013 and 2015.

In respect of medical care, mental health care, and dental care visits, an analysis of UDS data from Arizona and California shows FQHCs experienced a greater increase in the provision of these three types of services between 2013 and 2015 (see Appendix X, Figure 4, 5, and 6). By contrast, UDS data from Texas shows FQHCs experienced a greater increase in providing medical, mental health, and dental care visits between 2011 and 2013 (see Appendix X, Figure 4, 5, and 6).

#### **4.3.1 The impact of the ACA on patient demand for care according to administrators**

The analysis of the UDS data suggests that since 2008, FQHCs constantly increased the number of overall services and services in medical, dental and mental health services provided to patients. This section presents findings from interview data that specifically examines FQHC administrators' perspective on the ACA's impact on their demand for care.

According to the majority of executive and mid-level managers across the three states (n= 15/23), their FQHCs had always experienced high patient demand, including in the period prior to the implementation of the ACA. This did not differ between FQHCs with different patient sizes. Coverage expansion was certainly thought to have contributed to the increase, as administrators were aware of more newly insured patients seeking care from FQHCs



particularly in Arizona and California; however, high demand for care was not a new phenomenon for these providers as **AZ Director 1** stated *“The demand for care hasn’t really changed from the Affordable Care Act. The demand is always there.”*

However, an analysis of the interview data suggests that administrators from the three states had differing views on the extent that the ACA contributed to the increase in demand for care in their health centers. For example, the majority of executive directors and mid-level managers from both small and large FQHCs in California attributed the increase in patients’ demand for care to the ACA. Californian mid-level managers substantially believed that coverage expansion had enabled large numbers of uninsured people to gain coverage essentially overnight, which had caused a flood of patients to seek care immediately through their observation in their clinics. A mid-level manager from the largest FQHCs (CAFQHC1) selected in California stated:

*“You take a large group of people who formerly didn’t have any health insurance coverage and you give them coverage overnight. So these people have all these pent up health care needs that they would only go for doctors if they...you know...really, really, needed it. So they did not have any preventative maintenance, let’s just say, for years. Now they are flooding the system, they are coming in, they have a card so they think they should get everything in today and rightfully so.”* **CA Manager 2**

Coverage expansion was also believed to have contributed to the increase in demand as many newly insured patients had extensive health problems. Obtaining health insurance enabled these newly insured patients to seek the care they needed for problems long ignored or untreated given their previous lack of coverage. A mid-level manager from a CAFQHC3 described that many newly insured patients arrived seeking basic healthcare services. However, it was later discovered that they had neglected health conditions, which required extensive care and referrals to secondary providers:

*“When they come to us they just have so much [need for] help. You know, it’s not like oh you’re going to come here today and you’ll get*

*a flu shot, like no, you have...you get so many referrals.” CA  
Manager 4*

By comparison, executive directors and mid-level managers from Arizona and Texas were more cautious about directly attributing the rise in demand for care solely to the ACA, emphasizing that this was a pre-existing pattern:

*“I mean we always have more, you know, demand than access. I don’t know that I would necessarily . . . attribute that to just the ACA, to the Affordable Care Act, but it is hard to differentiate.” TX  
Manager 1*

Several executive directors identified one of the main contributing factors for the changes in demand for care was their constantly evolving neighborhood population. One executive director (AZ Director 1) and a mid-level manager (AZ Manager 1) from two large FQHCs in Pima County stated the consistent growth in their community’s population contributes to the ongoing rise in demand they experienced.

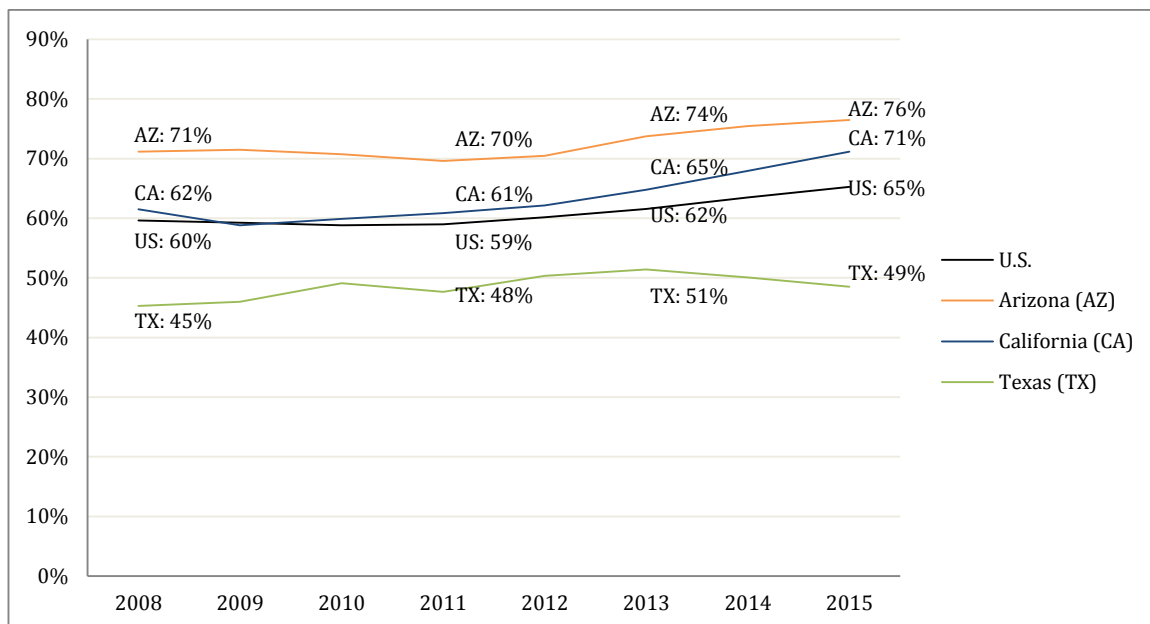
By contrast, four executive directors from the two Texan FQHCs believed the increase in demand might be attributed to the recent population growth of their city. An executive director from the smaller FQHC (TXFQHC2) stated, “a huge piece of the landscape for [them] is the growth of Austin. The region [has] something like 100 people [moving] here a day” **TX Director 3**. This rapid population growth also impacted the larger FQHC (TXFQHC1) in the city as one of the executive director believed many new residents had annual income that tend to utilize their services. This suggest that it contributed to their growth in the number of patients they served, thus contributing to the rise in demand for care from their health center.

#### **4.4 FQHC revenue in Arizona, California and Texas according to UDS data under the ACA**

The Uniform Data System (UDS) annually collects information on FQHCs’ revenue from all funding sources. Patient and grant revenue is reported on a cash basis (reported revenue when the cash is received, or the payments made

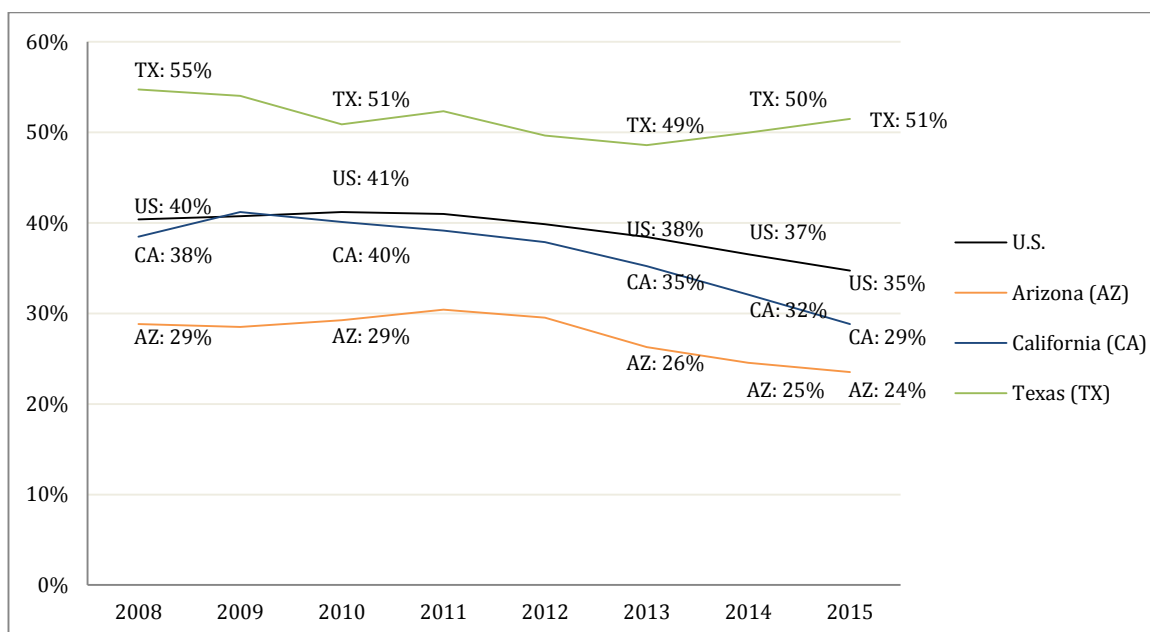
from the payer) (BPHC, 2016). As discussed in Chapter 1, the two forms of FQHC revenue are patient coverage and grants. However, the proportion of patient revenue in comparison to grant revenue has gradually increased since 1985 (Rosenbaum et al., 2010; Shin et al, 2012b). This claim is supported by this study as the analysis of UDS data from 2008 to 2015 also suggests that the main source of revenue increase for FQHCs in the U.S., including those in Arizona, California, and Texas, was patient coverage rather than grant funding (see Figure 4.4 and 4.5). For example, Arizonan UDS data from 2008 shows the proportion of total revenue from patient coverage was 71 percent (see Figure 4.4), while the proportion of total revenue from grants was 29 percent (see Figure 4.5). By 2015, the proportion of total revenue from patient coverage increased to 76 percent, while the proportion of the total grant revenue declined to 24 percent. The same trend can be observed in Californian UDS data, with the proportion of total revenue from patient coverage accounting for 62 percent, and the proportion of total revenue from grants accounting for 38 percent in 2008 (See Figure 4.4 and 4.5). In 2015, the proportion of total revenue from patient coverage had increased to 71 percent, while the proportion of total grant revenue had declined to 29 percent. The proportion of grant funding accounted for a higher percentage of total revenue for FQHCs in Texas compared to Arizona and California. However, Texan UDS data shows the proportion of total revenue from patient coverage slightly increased between 2008 and 2015, while the proportion of total grant revenue during the same time period slightly decreased (see Figure 4.4 and 4.5). Texan UDS data shows the proportion of total revenue from patient coverage in 2008 was 45 percent, which increased to 49 percent in 2015. The total revenue from grants in 2008 was 55 percent, which decreased to 51 percent in 2015.

**Figure 4.4: Proportion of FQHCs' revenue from patient health insurance coverage in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

**Figure 4.5: Proportion of FQHCs' revenue from grant revenue in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

#### **4.4.1 FQHC revenue from specific insurance type under the ACA**

An analysis of UDS data from the three states for 2008 to 2015 shows revenue from Medicaid accounted for a much greater proportion of total patient revenue than revenue from private insurance and self-payers. The proportion of revenue from Medicaid significantly increased in Arizona and California during the implementation of Medicaid expansion between 2013 and 2015 (see Appendix XI, Figure 7). For example, the proportion of Medicaid revenue collected by FQHCs in Arizona increased by 8.5 percentage points, while in California it increased by 10.3 percentage points during the two-year time period that coverage expansion was in effect. An analysis of UDS data from Texas shows the proportion of Medicaid revenue collected by FQHCs only increased by 1.2 percentage points between 2013 and 2015 (see Appendix XI, Figure 7).

In respect to revenue collected from private insurance, an analysis of UDS data shows little or no gains in revenue from private insurance providers for FQHCs in Arizona and California, and only a modest increase in private insurance revenue for FQHCs in Texas (see Appendix XI, Figure 8). Specifically, the proportion of private insurance revenue collected by FQHCs in Arizona decreased by 1.2 percentage points from 2013 to 2015 while in California it increased by only 0.1 percentage points. In Texas, FQHC revenue collected from private insurance increased by 2.8 percentage points between 2013 and 2015.

UDS data shows FQHCs in the three states experienced a reduction in the proportion of self-payers or uninsured patients served between 2013 and 2015 (see Appendix XI, Figure 9). As a result, the proportion of revenue from self-payers also declined. UDS data shows that, from 2013 to 2015, the proportion of revenue from self-payers fell by 5 percentage points in Arizona, by 4.4-percentage points in California, and by 2.6-percentage points in Texas.

#### **4.4.2 FQHC revenue from federal grants under the ACA**

The UDS data separates the sources of grant revenue collected by FQHCs into three categories: Federal grants, Other federal grants, and Non-federal grants and contracts (see Table 4.1). Revenue from these three grant sources are reported during the calendar year on a “cash basis” (nominal value), a type of accounting that only records the cash received or payments made to FQHCs (BPHC, 2016). The nominal value of the revenues obtained from the three grant sources were therefore converted into real values to take into account inflation (see converting process in Appendix III). Much of the federal grant revenue received by all types of FQHCs falls under “Bureau of Primary Health Care” (BPHC) (BPHC, 2016). Grant funding under BPHC grants include programs supporting Migrant Health Center, Community Health Center (Section 330 grant), Health Care for the Homeless, Public Housing Primary Care, Capital Improvement Program Grants, and Affordable Care Act Capital Development grants. Within the data, ACA-related federal grants are not identified separately, except for capital grants to support physical expansion and renovations to FQHC buildings. As a result, the data provides limited scope to be able to identify exactly how much enhanced federal funding FQHCs in each state received from the ACA.

**Table 4.1: Source of grant funding for FQHCs**

Sources for grant funding	Types of grants received
Federal grant- "Bureau of Primary Health Care (BPHC)"	<ul style="list-style-type: none"> <li>• Migrant Health Center</li> <li>• Community Health Center (Section 330 grant)</li> <li>• Health Care for the Homeless</li> <li>• Public Housing Primary Care</li> <li>• Capital Improvement Program Grants (excluding ARRA and ACA)</li> <li>• Affordable Care Act (ACA) Capital Development Grants</li> </ul>
Other federal grants	<ul style="list-style-type: none"> <li>• Ryan White Part C HIV Early Intervention</li> <li>• Other Federal Grants</li> <li>• Medicare and Medicaid HER Incentive Payments for Eligible Providers</li> </ul>
Non-Federal grants/ contracts	<ul style="list-style-type: none"> <li>• State government grants and contracts</li> <li>• State/local indigent care programs</li> <li>• Local government grants and contracts</li> <li>• Foundation/ private grants and contracts</li> </ul>

Source: Bureau of Primary Health Care, 2016

An analysis of the UDS data for the three states shows that the real value of revenue collected by FQHCs from federal (BPHC) grants increased substantially between 2008 and 2015. California saw the greatest increase with a 108 percent change (see Appendix XII, Figure 12 and Table 8), while in Arizona federal grant revenue increased by 43 percent (see Appendix XII, Figure 11 and Table 7) and in Texas it increased by 50 percent (see Appendix XII, Figure 13 and Table 9). The time period between 2011 and 2015 is particularly significant as this was the distribution timeframe for enhanced federal funding (Rosenbaum, 2011). An analysis of UDS data shows the revenue (in real value) from BPHC grants increased for all three states during this time period. FQHCs in California experienced the greatest increase with federal grant revenue rising by 72 percent, while FQHCs in Texas experienced an increase of

34 percent. Those in Arizona experienced the smallest increase in federal grant revenue during this period, with a rise of only 13 percent.

#### **4.5 Coverage expansion impact on FQHCs' revenue in Arizona, California and Texas according to administrators**

The analysis of the UDS data suggests that revenue from patient coverage and federal grants changed for FQHCs in the three states under the ACA. This section provides an additional lens to understanding the impact of the policy on FQHCs' revenue by presenting the analysis of interview data from administrators.

The analysis of interview data suggests that all administrators (executive and mid-level managers), whether from small or large FQHCs, viewed coverage expansion as an opportunity to serve more insured patients. The expansion of coverage meant that many of their uninsured patients had the potential to transition from being out-of-pocket payers, to being newly insured with a dependable insurer covering most of the cost of their care. A mid-level manager further articulated this overall view:

*"The biggest [impact of the ACA] is just being able to get our patients insured. You know what I mean? Get people off of that sliding fee (sliding fees are discounted prices offered to uninsured patients that are paying the cost for care out of pocket) and getting them onto an actual insurance company." AZ Manager 2*

Reducing the proportion of patients that were underinsured and uninsured for all FQHCs were essential as it would reduce their need to subsidize the cost of care and/or cover the cost of uncompensated care. This would enable health centers to become more financially secure and sustainable. According to **CA Director 1** *"If we can have individuals with coverage . . . it brings in funds to the organization . . . [it] helps us sustain, you know, the services that we provide."*

The majority of administrators (n= 13/16) from small and large FQHCs in Arizona and California felt that Medicaid expansion had the greatest positive



impact on their revenue, as many of their low-income uninsured patients were able to gain health insurance coverage. All Arizonan and Californian executive and mid-level managers viewed the Medicaid coverage positively as it covered nearly the cost of care generated by enrollees. According to **CA Manager 2**:

*“Medi-Cal (Medicaid program of California) is one of our best payer sources. So when a patient goes from having no health insurance to having Medi-Cal, it’s like, over \$100 difference to us. So if we were seeing all those [uninsured] patients, the bottom line for us is now their cost of care is being covered, where [before], we were having to subsidize them in some other way. So that’s huge, it has allowed us to really turn a financial corner this past year.”*

Given the limited impact that expanding private insurance made to the selected FQHCs in Arizona and California, in contrast to Texan administrators, their executive directors and mid-level managers generally did not discuss it. The majority of Texan administrators (n= 5/7) from both FQHCs acknowledged the missed opportunity of their state not expanding Medicaid and the positive impact it could have made on their finances:

*“Well, so, it’s been interesting waiting and watching if Medicaid expanded in Texas right? You know, because we were initially geared up for a Medicaid expansion and thought that would actually bring a lot of opportunity for growth. So when that didn’t occur, it didn’t really limit our ability to provide care, but I don’t think our growth occurred [in] the same manner that [it] might [have done] with Medicaid expansion.” **TX Director 1***

As found from the analysis of the UDS data, Texas FQHCs did not believe they had experienced an increase of gaining newly insured patients with private coverage. This is described by the interview data (section 4.1.2.) as all the administrators from the two selected FQHCs in the state noted minimal gains in newly insured patients with private insurance. This caused both case studies in Texas—an FQHC with a small patient population and an FQHC with a much larger patient population—to generate minimal revenue from the coverage type. However, this study’s findings suggest another major reason for FQHCs to experience minimal increase in revenue from private insurance was related to

the low payment rates they received from them. According to TX Director 2, the payments they receive from private insurance plans were generally not as high as what they would receive from Medicaid. There are also instances where the payment from private plans was significantly less than what the actual cost of care generated by the beneficiaries. This caused a problem for FQHCs, as they would have to absorb the uncompensated cost. Furthermore, an executive director (TX Director 3) from the smaller FQHC (TXFQHC2) discussed the administrative burden linked to dealing with privately insured patients. Their administrative staff were confronted with increase workload caused by needing to submit substantial reimbursement claims, referring patients, and completing additional administrative tasks necessary to comply with their contract.

The general consensus, predominantly among Arizonan and Californian executive directors and mid-level managers, was that coverage expansion, particularly the expansion of Medicaid, contributed significantly to their overall finances. While this was not directly experienced by FQHCs in Texas, Texan administrators also acknowledged the opportunities they would have gained if Medicaid expansion had occurred in their state. Nevertheless, all the administrators believed gaining more insured patients was essential for their organization as this made it possible for them to expand their capacities in a sustainable manner. **AZ Director 2** stated: *“By having [a] more sustainable payer mix (proportion of patients covered by specific health insurance type), we are able to invest in more patient services.”*

#### **4.5.1 FQHCs’ revenue from grant funding under the ACA according to administrators**

All the executive directors from small and large FQHCs stated that patient revenue accounted for much of their total revenue and was vital to their sustainability. However, they also acknowledged the important role of federal grant funding. All of the executive directors from the three states reported that the implementation of the ACA introduced many opportunities for FQHCs to gain additional federal grant funds:

*“It (The Affordable Care Act) introduced more funding. There’s a lot of funding tied specifically to community health centers . . . we’re the only program [that] directly [receives funding] through the Affordable Care Act.”* **AZ Director 1**

A mix of executive directors and mid-level managers (n=13/23) from small and large FQHCs reported their organization received some level of additional federal grant funding from the \$11 billion dedicated to FQHCs for five years. However, the analysis of the interview data suggests the amount of federal grant funding received by FQHCs varied. In particular, some FQHC administrators felt that health centers with larger staffing capacity and experience in submitting grant applications to the federal government were more likely to gain grant funding than others. According to AZ Director 2 and CA Director 1 from two of the largest FQHCs in Arizona and California, having dedicated staff to submit grant applications in a competitive process had helped to obtain additional funding.

In addition to federal grant funding, administrators particularly from Texas also discussed the important role of state grant funding, especially as it covered the financial gap between patient revenue and services expenditure in the absence of Medicaid expansion. The executive director from the smaller FQHC (TXFQHC2) reported they were able to expand their resources, even without coverage expansion by receiving large amount of funding from available state grants. Texas was able to implement the 1115 Medicaid Transformation Waiver in 2011, which created a funding pool totaling \$29 billion that was to be distributed over five years and cover the cost of uncompensated care generated by approved healthcare providers (Schlenker & Huber, 2015). In addition, funding was dedicated to programs that could demonstrate the improvement of infrastructure and/or delivery of care (Schlenker & Huber, 2015). According to **TX Director 3**, the Waiver enabled health centers in the state to receive a *“big infusion of cash related to services that [they] couldn’t normally bill for.”* Although the Waiver did not expand Medicaid to cover uninsured low-income individuals like the ACA,

administrators reported the funding enabled centers to focus on improving the health outcomes of patients by expanding or introducing certain services and change their current operations:

*“A lot of our Section 1115 Waiver Medicaid, um, the Health Care System Reform and Incentive Project . . . are focused on that quality piece. So we have a lot of those projects working in our house right now to try to enhance quality in the organization, and so I think a lot of that is probably inspired by the Affordable Care Act.” TX Director 2*

Over half of administrators (n= 13/23) from small and large FQHCs across the three states (8 mid-level managers and 5 executive directors) stated that funding from local government and local grants was also an important source of revenue, but accounted for a minimal amount of their overall revenue. Nevertheless, some local governments dedicated a limited amount of funding to cover the cost of care for specific segments of the population, such as undocumented immigrants, that were unable to gain coverage. One mid-level manager from the largest FQHC (CAFQHC1) in California stated the elected official in the county dedicated “\$400,000 for indigent care [which] would go towards the FQHCs...that are providing care to this population” (CA Manager 2). By contrast, an executive director (TX Director 3) for a small FQHC (TXFQHC2) in Texas reported they were able to gain several million dollars from a local foundation to help extend their physical capacity by building a new site in the city.

## **4.6 Chapter Summary**

This chapter presented the impact of the ACA on patient health insurance coverage, demand for care, and revenue as experienced by FQHCs in two Medicaid expanded states (Arizona and California) and one non-expanded state (Texas). Section 4.2 discussed the ACA’s impact on health insurance coverage by analyzing data from Uniform Data Systems and interviews conducted with administrators. According to the analysis of UDS data from the three states,

FQHCs in Arizona and California experienced a noticeable increase in the proportion of Medicaid patients and a minimal increase in the proportion of privately insured patients between 2013 and 2015. Texan UDS data shows the proportion of Medicaid patients in the state minimally increased during the period. The proportion of private insured patients was slightly higher than that in Arizona and California. UDS data for the three states shows the proportion of patients without coverage served by FQHCs reduced between 2013 and 2015. The interview data reflects the UDS data. The majority of administrators from Arizona and California acknowledged Medicaid expansion resulted in their organizations serving more patients covered by Medicaid. In addition, they experience a minimal increase in patients with private insurance. By contrast, administrators from Texas reported that their state's decision not to expand Medicaid meant their organizations experienced minimal change in the number of their patients with Medicaid. Texan administrators also reported their FQHCs saw minimal increases in the proportion of patients served that had private insurance. Nevertheless, the majority of administrators from the three states acknowledged coverage expansion contributed to a reduction in serving uninsured patients. The analysis of interview data also provided additional explanations on why FQHCs in Arizona and California were likely to experience an increase of serving more Medicaid patients.

Section 4.3 presented the ACA's impact on demand for care by analyzing the two data sources. An analysis of UDS data from the three states shows the total numbers of provided overall services, medical, dental, and mental health services increased every year between 2008 and 2015. However, UDS data from Arizona and California showed they experienced particularly pronounced growth in the number of provided visits for the three service types between 2013 and 2015 (i.e., following implementation of the ACA's coverage expansion provision). By contrast, FQHCs in Texas experienced their greatest increase in provided visits in the period preceding implementation of coverage expansion (from 2011 and 2013). An analysis of interview data shows that demand for care was high prior to the implementation of the ACA and remained high after its implementation. Administrators were not able to numerically define the

changes in demand experienced under the ACA, but focused on discussing factors they saw as contributing to consistently high demand. Arizonan and Texan administrators were cautious in attributing the increase in demand for care directly to the ACA. By comparison, Californian administrators strongly believed the expansion of Medicaid coverage brought in under the ACA was the principle cause of increased demand for care from their services.

Section 4.4 presented the ACA's impact on FQHCs' finance. According to an analysis of UDS data between 2008 and 2015, patient revenue, rather than grant revenue, accounted for much of the total revenue in Arizona and California. By contrast, the proportions of patient revenue and grant revenue were nearly equal for Texas. As a result of Medicaid expansion being implemented in Arizona and California, UDS data shows patient revenue from Medicaid noticeably increased between 2013 and 2015. Texas UDS data shows the proportion of patient revenue from Medicaid minimally increased during the same time period. The increase in the proportion of revenue from private insurance was highest in Texas between 2011 and 2015, while Arizonan UDS data shows the proportion of revenue from private insurance decreased between 2013 and 2015. UDS data shows the proportion of revenue from private insurance slightly increased during the same time period. UDS data from all the three states showed a decline in revenue from self-payers between 2013 and 2015, more likely due to a reduction in serving uninsured patients.

According to UDS data from the three states, the proportion of total grant revenue received by FQHCs has continuously declined since 2008. However, the proportion of grant revenue from the federal (BPHC) grant funding between 2011 and 2015 increased. This indicates FQHCs in Arizona, California, and Texas received funding from the distribution of enhanced federal funding under the ACA.

Section 4.5 presented the analysis of the interview data and found that administrators from Arizona and California were positively impacted by Medicaid expansion, as it caused their patient revenue from the coverage type to increase. By contrast, administrators from Texas reported their patient revenue did not change significantly, as they were not impacted by Medicaid

expansion, and only experienced a minimal increase in the number of patients they served with private insurance. The majority of administrators from the three states reported their FQHCs were awarded additional federal grant funds under the ACA, which increased their grant and overall revenue. However, Texan administrators acknowledged additional state funding distributed over the period in which the ACA took effect helped to cover the gap in revenue caused by not expanding Medicaid. While administrators acknowledged grant funding provided additional revenue, enabling them to strengthen their financial sustainability, as providers for low-income populations, serving more insured patients was considered vital to their longevity.

# **Chapter 5: Results**

## **Response of case study FQHCs to changes under the ACA**

### **5.1 Introduction**

Chapter 4 presented an analysis of state level UDS data on how the ACA impacted FQHCs' patient coverage, demand for care and revenue in Arizona, California, and Texas. This numerical data showed that the selected variables changed over time, generally for the better, although this depended on whether the FQHCs were based in Medicaid expanded-states, such as Arizona and California or a non-expanded states, such as Texas. The analysis of interview data from administrators in the three states provided further insight into how the selected FQHC cases experienced these changes from a personal perspective. This chapter uses Chapter four's findings to understand how the administrators from the three states perceived the opportunities and challenges that the policy created. It also explores how the administrators responded to these opportunities and challenges and met the needs of their patients.

Section 5.2 presents an analysis of interview data with respect to how administrators perceived their ability to meet the demand for primary care following the implementation of the ACA. It is followed by section 5.3 by discussing how administrators perceived their ability to meet the demand for secondary care. Section 5.4 presents how FQHCs attempted to meet demand for care through expanding their capacity by expanding their physical space and workforce. This is accomplished by presenting the analysis of UDS data on these variables. Section 5.4.1 presents FQHCs action to expand their capacity under the ACA according to administrators. This is followed by section 5.4.1.1, which presents how FQHCs in Arizona and California expanded capacity. Section 5.4.1.2 then presents how FQHCs in Texas expanded capacity. Section 5.4.1.3



briefly discusses the strategies used by FQHCs in the three states to extend their capacity with a limited workforce. Section 5.5 provides a chapter summary.

## **5.2 Administrators perception on their ability to meet demand for primary care under the ACA**

In Chapter 4, findings from an analysis of UDS data from 2008 and 2015 for Arizona, California, and Texas suggest that the higher service delivery of overall healthcare services is consistent with a higher demand for care. The analysis of interview data from the majority of executive and mid-level managers from small and large FQHCs in the three states provided a different perspective on this topic. It suggested demand for care was already consistently high prior to the implementation of the ACA. Therefore, it was difficult for administrators, particularly those from Arizona and Texas, to ascertain the extent of the policy's impact on increasing demand for care. By contrast, the majority of executive and mid-level managers in California held the perception that the enactment of the ACA indeed contributed to the rise in demand for care.

An analysis of the interview data suggests a general consensus between executive and mid-level managers (n= 21/23) from small and large FQHCs in the three states: that meeting demand for primary care was challenging both prior to, and following, the implementation of the ACA. Administrators identified two factors hindering their ability to meet demand after the implementation of the ACA. The first was their limited capacity, and the second was the lack or limited nature of their patients' health insurance coverage.

More than half of the administrators (n= 13/23) from small and large FQHCs across the three states mentioned the problem of their limited capacity, in respect of both physical space and the clinical workforce, when meeting the demand for primary care. Unlike Arizonan administrators, mid-level managers and executive directors from California and Texas specifically discussed these problems. Two mid-level managers (CA Manager 1; CA Manager2) from the largest FQHC in the California (CAFQHC1) stated that the ACA's coverage expansion provided the opportunity for many of their previously uninsured

patients to gain insurance, thus potentially improving their access to care. However, the organizations' limited physical space potentially restricted these patients' ability to establish care with them, as they could not immediately accept new patients:

*"This [clinic] use to be the place where they [patients] would go [for primary care], and now, there is a waiting list. You know the last thing I heard, there was like 800 patients in the waiting list...400 [patients] in [the other site] on the waiting list." CA Manager 1*

One of the executive directors (TX Director 3) from a small FQHC in Texas (TXFQHC2) also reported facing the same challenge even if they were not particularly impacted by coverage expansion. Due to their current facilities reaching maximum capacity, they could not accept any new patients until they could open additional facilities.

An analysis of the interview data also suggests that many administrators (n= 9/23) from all FQHCs (both small and large) across the three states struggled to meet demand because of limited workforce capacity. Five executive directors and four mid-level managers discussed this challenge, particularly when speaking about their rationale for expanding their workforce. This was a problem prior to the implementation of the ACA but was more visible after its enactment. According to an executive director from a large Californian FQHC, the policy caused many of their physicians to reach the maximum number of patients they could serve or, in some cases, exceed it. This increasingly became a dilemma not only for the physicians but also for the wider organization.

*"We are entitled to close [physician] panels (the number of patients a physician is assigned based on his or her capacity to effectively treat them) . . . we just don't have a history of doing that because it is uncomfortable for us. Again, the staff [members] are uncomfortable with it, the board [members] are uncomfortable with it. So we have really kept our doors open . . . and just ask a lot of our clinicians to take on more and more patients, and so that's a huge problem." CA Director 2*

A second factor that impacted FQHCs' ability to meet the demand for primary care was each patient's coverage type. All the administrators (n=

23/23) acknowledged the importance of their uninsured patients gaining health insurance coverage, as it improved their ability to access care. As discussed in Chapter 4, having patients covered by health insurance also significantly improved FQHCs' ability to care for them, as they would receive reimbursement for the care provided to beneficiaries without generating uncompensated costs. All the administrators also believed Medicaid to an extent were a better coverage type for their low-income patients than private insurance. A significant majority (n= 20/23) of administrators believed many of their previously uninsured low-income patients who were able to gain coverage from Medicaid had the best health insurance, as it provided comprehensive coverage and no or limited cost sharing. Medicaid patients could also access secondary care services to a large extent. Furthermore, as discussed in Chapter 4, this coverage type covered the cost of beneficiaries' care. This made it easier for FQHCs to meet their demand for care, albeit as their resources allowed.

*"Medi-Cal (Medicaid program of California) is [a] great coverage [plan] from the patient perspective because it covers everything. It covers your primary care, your medication, and it covers emergency rooms, and it covers hospitalization." CA Director 1*

A little over half of the administrators (n= 12/23) believed the private insurance plans obtained by their patients did not provide the same comprehensive benefits as the Medicaid program. Six mid-level managers from a small FQHC in Texas (TXFQHC2) and five large FQHCs across the three states (AZFHQC3, CAFQHC1, CAFQHC2, CAFQHC3, and TXFQHC1) believed the private insurance plans selected by many of their low-income patients had costly and inadequate coverage. Their plans had low monthly premiums, but high co-payments and deductibles, even when receiving federal subsidies to lower the cost.

*Most of our [uninsured] patients are making the decision whether . . . to buy groceries or go to the doctor. They don't have the money for even an inexpensive [health] insurance program . . . It's like these people not only live paycheck to paycheck, but often don't have [any] money, you know? They were already coming to see us with no money." TX Manager 1*

Administrators in Arizona and California minimally discussed the problems associated with serving privately insured patients and meeting their demand for care, as they did not serve many with the coverage type. However, Texan administrators focused on this topic as their patients that gained private insurance with limited coverage and high share of cost were at risk of being underinsured. It was also a phenomenon that became increasingly apparent in Texas. Two executive directors and two mid-level managers from both Texan FQHCs acknowledged their struggle to help meet patients' demand for care, especially if they had to help cover the cost of care. There was an overall consensus among the Texan administrators that their FQHCs would do everything they could to ensure any patients could receive the care they needed. However, the analysis of the interview data suggests they struggled to meet their demands due to their limited coverage and the organizations' limited ability to cover the cost of their care. This was particularly a challenge for TXFQHC2 as they were much smaller and had limited financial capacity. Administrators from both of these FQHCs were dedicated to finding ways to help these patients cover the cost. However, gaining private insurance meant that many of them were ineligible to receive the full extent of financial assistance from different financial assistance programs. Also, FQHCs had limited sources of revenue that could provide sufficient financial support to these patients, as it would disable them to help cover the cost of uninsured patients.

### **5.3 Administrators perception on their ability to meet demand for secondary care under the ACA**

FQHCs are not mandated to provide secondary care, but they extensively refer their patients in need of such care to specialists. A significant number of mid-level managers and some executive directors across the three states (n= 14/23) reported that the referral of patients to specialists has become increasingly difficult. This problem was experienced by both small and large FQHCs and was an ongoing problem even prior to the implementation of the ACA. Unlike

administrators from Arizona and Texas, the findings from the interview data suggest the majority of Californian administrators (three mid-level managers and two executive directors) from three of the FQHCs perceived the ACA to have contributed to the increasing demand for more secondary care. This was due to the fact that more people had some form of health insurance coverage and sought primary care for the first time, thus causing an increase of identifying various untreated health conditions requiring treatment beyond primary care. As **CA Manager 4** stated:

*“When they (patients) come to us, they get like four or five referrals, for four or five different things . . . they (patients) need to see a cardiologist, they need to see a gastroenterologist . . . They have so much [need].”*

A sizeable number of administrators (n= 8/23) (four mid-level managers and four executive directors) from five large and one small FQHC across the three states also identified the unwillingness of specialist to accept certain insurance types limited their ability to access these services. Medicaid patients and the most affordable private insurance plans (Bronze plan) covered only a limited network of specialty providers. Several administrators acknowledged it was more difficult to refer privately insured patients with the most affordable plan to secondary services, given the limited network of providers willing to accept them. *“I think one of the hardest challenges is [that] there [are] a lot of specialists in the community that will not take the market place (private insurance obtained under the ACA)”* **AZ Manager 1**. The combination of high demand for secondary care services and also the shortage of specialists also led to an increase in waiting times for patients to access these types of services. Executive directors and mid-level managers (n= 9/23) from small and large FQHCs across the three states specifically discussed the long waiting periods confronted by their patients when seeking secondary care services. It was not uncommon for patients seeking care from certain specialists to wait for several months before obtaining an appointment. **AZ Director 1** stated, *“If you need a rheumatology referral, we are talking a three or four months [waiting period]”*. TX Director 4 described some waiting times for local hospitals could even be

longer. Due to high demand and limited capacity, patients could face wait periods of two to three years. Unfortunately, FQHCs and their patients could do nothing about the long waits, unless the need was classified as an emergency.

#### **5.4 Capacity expansion of FQHCs under the ACA according to UDS data**

In Chapter 4, the analysis of UDS and interview data found that FQHCs in Arizona and California generally experienced a greater increase in revenue than FQHCs in Texas, as a result of the rise in patient revenue from Medicaid. However, the analysis of the interview data also found that Texan FQHCs received additional state funding that helped improve the revenue of these providers. The analysis of both these data sources therefore suggests the selected cases in the three states experienced an improvement in their overall revenue. This gave FQHCs the potential to expand their resources and thus increase their capacity to keep up with and, to an extent, attempt to meet the constant high demand.

An analysis of the UDS data shows the overall physical capacity of the FQHC system in the three states grew as the number of individual operating sites increased every year from 2008 to 2015 (see Appendix XIII, Figure 14). Between 2008 and 2015, the total number of operating FQHCs increased by seven in Arizona, 16 in Texas, and 63 in California. Between 2011 and 2015, after the implementation of the ACA, the total number of operating FQHCs increased by five in Arizona, and nine in Texas. California had the largest increase over the period, with an additional 55 clinics coming into operation.

In addition to determining how the number of operating FQHCs in the three states changed, the analysis of UDS data also examined how their workforce changed from 2008 and 2015. This was accomplished by analyzing the change in annual full-time equivalent (FTE) (the ratio of the total number of paid hours during a time period by the number of working hours) for selected key primary care providers (PCPs) (physicians, nurse practitioners, physician assistants, nurses, and medical personnel) was analyzed. Physicians, nurse

practitioners (NPs), and physician assistants (PAs) are important PCPs for FQHCs as they provide primary care services to patients. NPs and PAs have also become increasingly important primary care providers for FQHCs as their licenses allow them to conduct similar procedures to physicians (Mundinger, 1994). Thus, hiring more of them allow FQHCs to increase their capacity to serve more patients. An analysis of UDS data shows that FQHCs have significantly increased the FTEs of NPs more than physicians and PAs in the three states under the ACA. The FTEs of these NPs between 2011 and 2015 increased by 79 in Arizona, by 425 in California, and by 142 in Texas (see Appendix XIV, Figure 16). By contrast, the increase of FTEs for physicians and PAs was lower during the same time period. An analysis of the UDS data shows FTEs of physicians in Arizona did not increase from 2011 to 2015 (see Appendix XIV, Figure 15). FTEs of physicians in California increased by 270 and FTEs in Texas increased by 19 (see Appendix XIV, Figure 15). The FTE of PAs decreased by two in Arizona and increased by 159 in California, and 21 in Texas during the same time period (see Appendix XIV, Figure 17).

Nurses and medical personnel are also key clinical support personnel for FQHCs as they assist physicians, nurse practitioners, and physician assistants. An analysis of the UDS data shows that FQHCs significantly increased the FTEs of medical personnel than nurses. The FTEs of medical personnel between 2011 and 2015 increased by 273 in Arizona, by 2,686 in California, and by 420 in Texas (see Appendix XIV, Figure 19). By contrast, the FTEs of nurses increased by 48 in Arizona, by 512 in California, and by 134 in Texas during the same time period (see Appendix XIV, Figure 18).

#### **5.4.1 Capacity expansion of FQHCs under the ACA according to administrators**

The findings from section 5.4 show FQHCs in the three states experienced an increase in the number of operating FQHCs and an expansion in their workforce. These two changes in FQHCs' resources suggest having the capacity to serve more patients may have been possible. This section present an analysis

of interview data from administrators to further understand whether, at the local level, they perceived that their resources had changed and their capacity had increased. This section also explores whether the selected FQHC cases across the three states were able to expand their resources and, if so, how they accomplished this task. It also explores how administrators' perceived their actions in respect of helping their health center to meet demand.

According to the vast majority of administrators (n= 22/23) from small and large FQHCs across the three states, they experienced some level of capacity growth under the ACA. Administrators reported their FQHCs physically expanded by opening new buildings and satellite sites, and/or by expanding current facilities. Administrators also reported their FQHCs added or extended services and increased their workforce. However, an analysis of the interview data shows FQHCs in the three states experienced different levels of capacity growth, apparently influenced by differing trends in their revenue streams. Therefore, this influenced their ability to sufficiently meet the increase in demand for care. The following sections describe the expansion of capacity more in depth from the perspective of FQHC administrators across the three states.

#### **5.4.1.1 Capacity expansion of FQHCs in Arizona and California**

The analysis of the interview data found FQHCs in Arizona and California had very similar experiences with regards to expanding their capacity. All of the executive directors and mid-level managers from the four FQHCs in Arizona experienced an expansion of their physical space during the first five years of the ACA. Similarly, all of the executive and mid-level managers from the three smaller FQHCs in California reported experiencing some level of physical expansion in their FQHCs. Only the largest Californian FQHCs (CAFQHC1) did not experience any physical expansion. According to five mid-level managers (AZ Manager 1,2; CA Manager 3, 4, 5) and four executive directors (AZ Director 1,2; CA Director 3, 4) from Arizona and California, the implementation of the ACA made it possible for their organization to grow physically due to the



improvements in revenue from patients and the availability of grants introduced by increased federal funding.

The two executive directors and one mid-level manager from the three large Arizonan FQHCs (AZFQHC1, 2, and 4) stated it was necessary for them to physically grow to meet their growing patient population and rise in demand. AZ Director 2 from AZFQHC2 discussed reaching full capacity at some of their sites. As a result, they *“opened three new sites. Two school-based clinics and one pediatric focus clinic” (AZ Director 2)*. In addition, one administrator from AZFQHC1 discussed their plans to open additional sites in the near future, as their current space in the main health center was reaching maximum capacity:

*“We are getting full right now and running out of space so instead of building on, maybe we need to go build a satellite location ten miles from here somewhere.” AZ Director 1*

By contrast, the executive director and mid-level manager of the smaller Arizonan FQHC (AZFQHC4) reported they were able to physically grow by acquiring a building in another part of the city that they aimed to serve. Compared to the three large FQHCs that physically expanded as a necessity, this health center grew to serve a segment of the population that was located in another part of their county.

A statement made by an executive director aptly captures the overall perspective of administrators from California regarding the impact of the ACA on their ability to increase their capacity:

*“The Affordable Care Act has in many ways made all of this [growth] possible because, obviously, the feds (federal government) were very interested in making this thing (Affordable Care Act) work.” CA Director 3*

All the administrators from the three Californian FQHCs reported having increased their physical space due to the availability of additional federal grant funding from the ACA. They reported their physical space expanded by acquiring new buildings, expanding current sites, and opening new sites. As **CA Manager 5** from one of the smaller FQHCs (CAFQHC4) stated, *“[It is] interesting*

*we are not shrinking. Yeah, many other organizations can be shrinking, but we are expanding . . . we have three new clinic [sites]".* Like their counterparts in Arizona, three mid-level managers and two executive directors from the two large and one small Californian FQHCs (CAFQHC 2, 3, and 4) reported growing their physical space was a necessity due to their increasing patient population and rise in demand.

While the main reason for Californian FQHCs to physically expand was to meet the meet their growing population, three of the FQHCs (CAFQHC2, **CAFQHC3** and CAFQHC4) reported their growth was also associated with extending their catchment. Administrators from three FQHCs reported their organizations had plans to extend their capacity to serve additional communities around their region. According to **CA Manager 3** from CAFQHC2:

*"We are working on building a brand new 30,000 square foot facility in the south [of our current location] and to see patients there as well."*

Arizonan and Californian administrators were also found to expand their FQHCs by extending their services. The new and extended services varied highly in each of the sites across the two states, as they were based on the FQHCs' current needs and the organization's focus. For example, a mid-level manager from a large FQHC in Pima County reported that they had expanded their prevention department, providing more health education and wellness classes to support patients undergoing certain treatments for chronic diseases. The ACA's focus on prevention, and the requirement for all health insurance plans to cover preventative care were seen as having contributed to the expansion of wellness classes. **AZ Manager 1** of AZFQHC3 stated, *"right now, we have wellness classes for everything. So I think that was a department that really grew in our area."* By contrast, a mid-level manager from a large FQHC in California (CAFQHC2) reported that they placed general practitioners in their women's clinic so patients could receive primary care on site:

*“So out of the women’s health services site, we actually recently just expanded primary care. It used to be just for OB/GYN (obstetrics and gynaecology services) care and within the last two months, we’ve added two providers. [So providers can] see women [patients] there for primary care visits as well.” CA Manager 3*

A common way that some of the FQHCs in the two states (with both large and small patient populations) undertook to expand their capacity was by extending their operating hours. The three mid-level managers of AZFQHC3 and the executive directors (CA Director 3 and 4) from CAFQHC 3 and 4 had extended their operating hours beyond 5pm and some remained open on Saturdays to serve more patients. This was to enable working patients to access care without needing to take time off work. It also allowed these health centers to serve more patients.

Another common expansion that two of the larger FQHCs in Arizona (AZFQHC1 and AZFQHC3) and all of the FQHCs in California (CAFQHC1, CAFQHC2, CAFQHC3, CAFQHC4) undertook was in secondary care. AZ Director 1 reported his health center was extending its ability to provide secondary care services on site, given the constant high need for secondary care and the difficulty in finding specialists willing to accept their patients:

*“[A patient referral to] neurology is very hard to get . . . [as well as] any gastroenterology [specialists]. Now we contracted with a lot of specialists to come in here, to our clinic, to see patients . . . so that helps get us a lot of access [for] our patients.” AZ Director 1*

The majority of mid-level managers and executive directors reported they were increasingly adding secondary care services to their FQHCs as a result of also having difficulties in referring their patients to specialists. CA Manager 2 from CAFQHC1 reported their organization now offered general practitioners the opportunity to receive training from specialists to extend their skills. CA Director 4 reported they were building their capacity to provide more secondary care services in-house, one specialty at a time.

An executive director of CAFQHC3 reported they pursued to collaborative with a local university to extend their ability to offer optometry services. This

partnership with the university allowed residents and students to train and practice their skills in their site. According to **CA Director 3**:

*“They (the local university) needed a training site for their senior residents, we needed some eye service. It worked out unbelievably well. We run one clinic five days a week here in this location, or nearby location, and another three days a week up in [another] clinic.”*

The third form of expansion that FQHCs in Arizona and California pursued was increasing their workforce. All executive directors and mid-level managers in the four Arizonan FQHCs reported that their workforce had increased under the ACA. An executive director from AZFQHC1, AZFQHC2 and three mid-level managers from AZFQHC3 reported they hired more clinical staff. The four FQHCs in the state also increased their non-clinical personnel to conduct outreach and provide enrollment assistants after the enactment of coverage expansion. These personnel could conduct community outreach to inform and educate the public about coverage expansion and provide enrollment assistance to individuals to complete the application for either the Medicaid program or private health insurance. The ACA made it possible for health centers to quickly hire non-clinical personnel given available federal grants:

*“We were able to hire a program manager and two staff. From that point [the federal government] gave an additional amount of funding to [us], and we were able to hire two [more] part-time staff for open enrollment.”* **AZ Manager 4**

According to all Californian executive and mid-level managers from the four FQHCs, their overall workforce increased given the number of both clinical and non-clinical staff personnel hired as a result of expanding physical space and services. According to a mid-level manager from CAFQHC3:

*“I started here two years ago. I’ve watched every single department grow, real fast. HR (human resources) was telling me the other day, we have hired close to 40 people since the beginning of this year for all departments.”* **CA Manager 4**

The analysis of the interview data found that Arizonan and Californian FQHC administrators provided a general discussion of the increase in the workforce they experienced under the ACA. The majority of these administrators also provided detailed viewpoints on the challenges they experienced when hiring more clinical staff. As observed in the analysis of Arizonan UDS data, the hours worked by one employee on a full time basis (FTEs) of physicians stayed the same from 2011 to 2015. According to two of the executive directors from the two large FQHCs in Arizona, they needed to hire more physicians. However, the need to hire more physicians within all primary care organizations in their region, alongside workforce shortages, caused high competition for them, thus making it difficult to hire more:

*"We cannot get enough [primary care] providers period. I'd hire 10 to 15 physicians today if we could have them. There's just not enough physicians out there." AZ Director 1*

One of the main factors identified by the two Arizonan executive directors (AZ Director 1, 2) making it difficult for them to hire more physicians was competition from other private healthcare organizations in the region. These private healthcare organizations tended to have higher budgets that enabled them to offer higher salaries and lucrative benefits that FQHCs simply could not, given their limited finances.

*"We have all these hospitals that the Affordable Care Act is pushing [to have them become] giant vertically integrated systems [and create] their own primary care clinics . . . They have very deep pockets so they're hiring the same people we are trying to hire here. Again, they have deep pockets so they can afford to spend a lot of money. So that [is] our challenge." AZ Director 2*

All of the executive directors from the four FQHCs in California also acknowledged the difficulty of hiring more clinicians, particularly physicians. Though the analysis of UDS data showed that the FTEs of physicians increased from 2011 to 2015 in the state, administrators still acknowledged their need to hire more. There were no distinct differences with the experiences between small and large FQHCs in respect of this challenge. According to **CA Director 2**

of CAFQHC2: *"We are always playing catch up in terms of hiring the right number of clinicians. A big part of our lives is trying to recruit clinicians."* In addition to the challenges with hiring physicians, retaining them was also a challenge. Administrators from both small and large FQHCs believed this challenge increased under the ACA. These administrators reported that they saw some of their clinicians leaving their positions to work for other healthcare organizations in the region, who were also seeking to expand their physician workforces. Similar to the experiences of AZ executive directors from the two large FQHCs, the administrators in the four Californian FQHCs reported their challenge to compete with private clinics and hospitals, as they were able to offer better employment benefits and higher salaries. **CA Director 2** stated the local hospital *"is paying . . . a hundred thousand dollars more a year per physician than we are in salary. It's just, we can't compare. There's just no way."*

One of the ways that all California executive directors from the four FQHCs tried to expand their clinical workforce by hiring other primary care providers less likely to be sought-after by private clinics and hospitals, such as nurse practitioners (NPs) and physician assistants (PAs). NPs and PAs can perform similar tasks as general physicians and can bill for rendered services to insurers. Therefore, many administrators reported:

*We are replacing some of our MDs (general physicians) with some NPs (nurse practitioners) and PAs (physician assistants) just 'cause they are more available. Mostly because [hospitals] don't hire them, don't use them for primary care. They use them, but in a very limited capacity."* **CA Manager 2**

FQHCs in Arizona and California were able to expand their capacity under the ACA. Both executive directors and mid-level managers either implicitly or directly discussed their need to further expand to meet the constant high demand for care from their patients. The analysis of the interview data also suggests that Californian administrators found it especially difficult to sufficiently extend their capacity and meet demand. For example, five Californian mid-level managers directly discussed the need to constantly "keep up" with the high demand for care. Administrators from the four FQHCs had not

anticipated experiencing such high volumes of newly insured patients seeking care so soon after coverage expansion. As a result, administrators had to expand their FQHCs' capacity at the same time as meeting increased demand from patients. This was particularly a challenging task for them.

#### **5.4.1.2 Capacity expansion of FQHCs in Texas**

The findings from the interview data suggest that the two FQHCs in Texas had a different experience of growth compared to those in Arizona and California. TXFQHC1 and TXFQHC2 were the only two designated FQHCs in their county and have served it for several decades. However, TXFQHC1 was a larger site that served more patients and became an FQHC much earlier than TXFQHC2. Administrators from TXFQHC1 believed the growth in their capacity could be attributed to additional state grant funding received under the Medicaid 1115 Waiver program rather than from the increased patient revenue, or enhanced federal funding, under the ACA. According to an executive director and a mid-level manager, the Medicaid 1115 Waiver program and the Affordable Care Act were implemented during the same time period. The waiver program provided FQHCs in Texas with significant sums of money enabling them to expand their primary and secondary care services. The mid-level manager further explained how the additional funds enabled the addition of new services and expands others:

*"A centering pregnancy program, telepsychiatry, integrated behavior health, [programs for] diabetic patients, expanded hours [that included] Saturdays and evening at certain clinics. As long as we hit a certain number of visits, then we should be able to sustain [them]." TX Manager 1*

Like their Arizona and California FQHC counterparts, TXFQHC1 increasingly faced the challenge of referring their patients to secondary care services. However, with the increase in state grant funding, an executive director and a mid-level manager stated their health center was able to introduce some secondary care services on their site.

TXFQHC2 had a different experience of capacity expansion than TXFQHC1. This was probably due to their smaller patient population and recent transition to becoming an FQHC. Although TXFQHC2 has existed for several decades, providing low cost care to low-income patients, the organization did not become an FQHC until recently, as a result of capital grants received from the ACA under the distribution of enhanced federal funding. According to **TX Director 3**, the ACA gave them the opportunity to transition to an FQHC, and was key to their growth:

*"I mean the fact that we became an FQHC, that's huge. That is what is allowing us to grow. We have been around for 44 years, 45 years. And we did the financial modeling to understand could we really expand? And we knew, we really couldn't unless we figured out another way to do it, and we decided to become an FQHC."*

However, for TXFQHC2 the funding received from the ACA was not sufficient, given the high demand for care. This was addressed as they received additional grant funding from a local private foundation allowing them to build a second building:

*"We are in expansion mode. Right now, our total footprint through a couple of different sites is about 22,000 square feet and that [new building] is going to [be] 59,000 square feet." TX Director 3*

A common challenge for these two Texan FQHCs - also experienced by their Arizonan and Californian counterparts, when expanding their services - was hiring more clinical staff. The expansion of services offered by TXFQHC1 and the rapid physical expansion of TXFQHC2 required both health centers to hire more clinicians. However, due to the limited workforce and competition from private healthcare organizations, increasing their clinical personnel became a struggle. An executive director from TXFQHC2 stated that clinicians have more choice of where they can work and can demand hire pay. This made it difficult for them to hire staff that have strong clinical skills but also supported the mission of their organization. It also became an ongoing concern as they were preparing to open a new facility that needed enough clinical



personnel to be fully functioning. Similarly to the executive directors from all FQHCs in California who increasingly hired nurse practitioners and physician assistants to cover the gap of primary care providers in their sites, an executive director from TXFQHC1 stated they attempted to address the challenge of hiring physicians by hiring other clinicians that could do similar tasks:

*“Well it’s a challenge to recruit. We compete with the physician shortage in America; that’s more of a challenge. We are moving to a model of nurse practitioner and PA (physician assistants) more ‘cause it’s easier to recruit.” TX Director 1*

The analysis of the interview data from Texan administrators implicitly suggests that they also continued to struggle meeting the high demands for care of patients. This was due to their need to simultaneously either extend their services or physical capacity, as was the case for TCFQHC2. The challenge of hiring more clinicians contributed particularly to their inability to effectively meet demand.

#### **5.4.1.3 A common strategy of FQHCs in the three states to extend capacity with limited workforce**

In addressing the issue of a constrained workforce, the analysis of the interview data found the majority of FQHCs in the three states made use of established health care teams. Two small and five large FQHCs across the states reported adopting this model into their practice. Care teams, or team-based healthcare, were not a new concept for FQHCs. According to **TX Manager 1**: *“Federally Qualified Health Centers have been doing ‘team based’ [care] for a while and it’s always been more about tweaking it and deciding, ok, how to improve it?”*

A significant number of administrators (n= 12/23; 7 executive directors and 5 mid-level managers) reported the care team model was an effective strategy when extending their capacity with the limited workforce as it allowed them to distribute tasks among various staff members, providing care for patients. As **CA Director 2** explained, a patient may need care, but does not necessarily need to be served by a physician: *“Maybe you don’t need to see [a]*

primary care clinician, but can see the RN (registered nurse) on the team today instead". Administrators believe the care team model enables staff members with specific skills to serve and meet the needs of patients:

*"A lot of time it's getting that person in front of a clinical pharmacist for medication management or [with a] dietician to help them with weight management, . . . a social worker to help them with some of these social determinants of health that a lot of our patients face . . . or even [a] nurse to help them better understand how to care for themselves when they are home, which is about eighty percent of where care occurs right? So we need to build out the rest of the team . . . so when the patient comes to the door, we can identify their needs and get them in front of the right person." TX Director 2*

## 5.5 Chapter summary

This chapter aimed to present executive directors and mid-level managers' perceptions of their ability to meet the demand for patient care after the implementation of the ACA, and the actions actually taken, planned or otherwise. It explored the challenges administrators confronted and the actions they took to meet the needs of their patients in the changing health care context following the implementation of the ACA.

The chapter begins in section 5.2 and presents the findings of administrators' perceptions with the challenges in meeting the demand for primary and secondary care services of their patients. Administrators identified that limited capacity (physical space and workforce) and limitations in patients' health insurance made it difficult for FQHCs to effectively meet the demand for primary care. The majority of administrators acknowledged their ability to meet patient demand was dependent on the capacity of the FQHC. FQHCs could only serve more patients if they could increase resources to expand capacity. However, these processes often took time and coverage expansion along with local factors contributed to the constant increase in demand for care for FQHCs.

While all administrators believed health insurance coverage is vital in improving patients' access to care, some insurance types were perceived to be better than others for low-income patients. It also enabled FQHCs to better meet

their demand for care. A majority of administrators believed Medicaid coverage was most appropriate for low-income patients, as it provided comprehensive coverage and had limited or no cost sharing. Medicaid also covered the cost of care of its beneficiaries. By contrast, private insurance purchased from the Health Exchange was viewed as a less effective form of coverage for low-income patients as copayments often meant that care remained unaffordable. Texan administrators, in particular, discussed many of their low-income patients who were eligible to obtain private insurance selected low-cost plans with limited benefits and a high share of the cost. As a result, low-income newly insured patients faced challenges when accessing care given their inability to afford the high share of the cost. It also did not entirely cover the beneficiaries' cost of care. Therefore, it was challenging for FQHCs, particularly smaller ones, to meet their demand, as they would have to absorb some of the cost. In regards to accessing secondary care services, Section 5.3 discussed all administrators from small and large FQHCs acknowledged the difficulties of referring their patients to these types of services prior to the implementation of the ACA. However, these difficulties continued even when more of their patients gained coverage from Medicaid and some limited private insurance plans obtained from the marketplace, given the low number of specialists willing to accept these coverage types. Shortages in certain specialist also exacerbated this problem causing long waiting periods or the inability for patients to access it. Section 5.4 presented the actions taken by FQHCs to improve their ability to meet patient need through the analysis of UDS data. Section 5.4.1 presented the actions taken by administrators to expand their capacity under the ACA from interviews. Section 5.4.1.1 presented the changes in the capacity of FQHCs in Arizona and California as they both had similar experiences of growth under the ACA. Administrators from Arizona and California acknowledged that increases in patient revenue as a result of Medicaid expansion and the distribution of enhanced federal funding improved their overall revenue. As a result, they were able to expand their physical capacity, add and extend health services, and increase their workforce. How services were extended varied among the FQHCs across the two states and was guided by individual centers' needs and focus. It

was difficult for all FQHCs to hire more clinicians given healthcare workforce shortages and competition from other health care organizations also requiring more staff members. Their limited financial capacity also made it difficult to compete with private healthcare organizations. Although all the FQHCs in Arizona and California were able to extend their resources and thus their capacity under the ACA, there was still a sense that these providers still struggled to meet their higher demand. Therefore, they needed to constantly expand their capacity while keeping up with current demands.

Section 5.4.1.2 presented the experience of FQHCs in Texas in terms of growing demand for care. The growth of the two FQHCs differed under the ACA as TXFQHC1 did not experience significant patient revenue or gain a large amount of revenue from the enhanced federal grants. TXFQHC2, which was much smaller, benefitted from the enhanced federal funding under the ACA, meaning the health center was able to expand its physical space and services. However, they both benefitted from state and local grants, which enabled them to further expand capacity. The growth of both FQHCs was limited due to the challenges with hiring more clinicians. Similar to the Arizonan and Californian FQHCs, Texan FQHCs, particularly TXFQHC2, struggled to meet demand.

While all the FQHCs experience some level of increase in capacity under the ACA, all of the health centers continued to feel the pressure of growing their capacity to meet the consistent high demand for care from their patients. Section 5.4.1.3 briefly discusses the similar strategy that the majority of FQHCs pursued to extend their capacity with limited workforce through strengthening their care teams.

# Chapter 6: Discussion

## 6.1 Introduction

The aim of this thesis was to investigate the impact of the ACA on FQHCs ability to provide care to their patients. Key elements that were specifically considered was the effort of the reform to extend coverage through the expansion of the publicly funded Medicaid program, private insurance, along with the distribution of enhanced federal funding.

The two results chapters (Chapters 4 and 5) presented analysis of quantitative data from Uniform Data Systems, and qualitative data from 23 interviews with FQHC employees from Arizona, California, and Texas. The findings suggest that one component of the ACA in particular - the expansion of the public insurance program called Medicaid- had the greatest positive impact on the ability of FQHCs to address the health needs of low-income populations. In states that expanded the program (e.g., Arizona and California), Medicaid provided more generous coverage to the low-income patients served by FQHCs than other forms of insurance, and provided FQHCs with additional and more stable revenue than was typically the case prior to the reform. As a result, they were better able to address the increase in the demand for care. By contrast, the expansion of private insurance through two other major components of the ACA—the individual mandate, and the establishment of the ‘marketplace’ for regulated insurance packages (which introduced regulation of insurers’ ability to deny coverage to high-risk individuals)—was seen as less helpful in improving access to care for FQHC patients. FQHC administrators did not perceive the expansion of private insurance as helpful in increasing their revenue or ability to provide care over the reform period. In addition, the distribution of enhanced federal funding to FQHCs also contributed to the expansion of capacity and further strengthened the ability of these providers to

meet the needs of their patients. While the additional federal grant funding was found to contribute to expanding FQHCs' capacity, the findings of this study suggest coverage expansion particularly from Medicaid was the aspect of the reform most important to their growth and sustainability, as patient revenue was a more dependable source of revenue.

The goal of this chapter is to explain how the findings of this thesis contribute to existing research in this area and advance scholarly and policy debates about the extent to which universal health coverage can be achieved in a mixed insurance market. It also contributes to current debates about policy implementation in a multi-government set up and the essential role of local level stakeholders in the process. This chapter begins in Section 6.2 by providing a summary of the study's main findings. Section 6.3 aims to discuss the ACA's impact on coverage for low-income patients and their access to primary care. The section posits Medicaid expansion was better able to expand coverage to low-income populations than private insurance. The key elements of the publicly funded Medicaid program are discussed and consideration is given to how they contributed to the expansion of coverage to low-income populations served by FQHCs. Section 6.3.1 discusses newly insured FQHC patients ability to access secondary care. Section 6.4 discusses the ACA's impact on FQHCs and their ability to provide care. Section 6.4.1 discusses the significant impact of Medicaid expansion on these providers given the opportunities created through improved patient revenue. It also discusses the limited impact of private insurance expansion on FQHCs and their uninsured patients. Section 6.4.2 discusses how federal grant funding expanded the capacity of FQHCs, identifying how this revenue source failed to lead to uniform expansion of providers' capacities. Section 6.4.3 discusses how workforce shortages limited FQHCs' ability to expand capacity, even with increased patient revenue and federal funding. Section 6.5 discusses the implication of this study for the broader literature on efforts to expand health care coverage in a mixed-insurance and multi- governance system. Section 6.6 discusses the limitations of the study and section 6.7 offers recommendations for future research related to the topic.

## 6.2 Summary of the main findings

The results of this thesis draw on two sources of data (quantitative data from Uniform Data Systems and interviews with FQHC administrators) to explore how the U.S.'s implementation of the ACA affected FQHCs' ability to address their patients' healthcare needs. The impacts of the ACA on FQHCs in two expanded states (Arizona and California) and one non-expanded state (Texas) were explored in greater detail in Chapter 4 through the analysis of UDS data and interviews with FQHC administrators. An analysis of UDS data showed that FQHCs in all three states gained newly insured patients with Medicaid, but those located in Arizona and California experienced a much more significant increase than those in Texas. The three states were found to experience minimal gains in numbers of patients with private insurance and a reduction in the proportion of patients served who were uninsured. With respect to the findings from the interviews, administrators from Arizona and California acknowledged that Medicaid expansion significantly impacted them as many of their patients gained coverage from it. Administrators from Texas on the other hand reported not being affected by Medicaid expansion due to the state's decision not to expand the program. The majority of administrators from the three states acknowledged many of their uninsured low-income patients did not gain coverage from private insurance as this remained unaffordable, meaning these patients continued to be served by FQHCs without coverage.

An analysis of UDS data suggests that FQHCs in the three states experienced an increase in the provision of medical care to patients (number of provided overall services, medical services, mental health services, and dental services) every year from 2008 to 2015. In other words, increased demand for care was a clear trend in these states even before the implementation of the ACA. The interview data suggest that demand for care was always high for these providers and it was difficult for administrators to determine how much the implementation of the ACA contributed to increasing it.

As expected, patient revenue was more likely to increase for FQHCs in Arizona and California than for those in Texas as a result of Medicaid expansion in the former two states. It was also found that the distribution of enhanced federal funding contributed to increased revenue for FQHCs in all three states.

Chapter 5 explored administrators' perceptions of the impact of the reform on their ability to meet demand for care, and the actions they took to meet the health care needs of their patients. The findings suggest administrators believed gaining coverage was essential to improving patients' access to care. In particular, they believed low-income patients covered by Medicaid were better able to access primary care than those gaining the most affordable private insurance plans, since the latter still required substantial out-of-pocket payments at the point of care. FQHCs strived to meet the primary care needs of their patients, but were constrained by limited capacity. All the administrators reported expanding their capacity as a result of improved revenue under the ACA; however, the process could not be accomplished quickly enough to meet the ongoing high demand for patient care. Moreover, shortages in healthcare clinicians and competition for new staff made it difficult for FQHCs to expand their workforce and increase their capacity to better meet the needs of their patients. In respect of accessing secondary care, the administrators acknowledged they struggled to refer their patients – whether these were covered by Medicaid or by the most affordable insurance plans – since only a limited network of specialists providers were willing to accept patients with these coverage types. This chapter suggests low-income patients gaining coverage experienced some improvement in their access to care. However, it underscored continued problem with the depth of covered benefits included in certain insurance types and the problem of high cost sharing associated with certain private plans. While FQHCs had the opportunity to expand their capacity, the process is time-consuming and could not always be undertaken in time to meet rapid increases in demand for care.



### **6.3 The ACA's impact on low-income patients' coverage and access to primary care**

The Affordable Care Act has been identified as arguably one of the most consequential and comprehensive health care reforms implemented in the U.S. since the introduction of the Medicare and Medicaid program under the administration of Lyndon B. Johnson in 1965 (Manchikanti, 2017). It aimed to expand coverage and improve various aspects of the healthcare delivery at the same time. The federal government's attempt to expand coverage by simultaneously extending the role of the public program, Medicaid, and private insurance, provides the opportunity to further understand the effectiveness of each method, particularly in providing coverage to previously uninsured low-income populations. Debate over the most effective way to expand coverage is ongoing, and while supporters of the reform emphasize that millions of people have gained coverage, critics identify weaknesses in the way expansion has been pursued, highlighting that millions of people remain without. This section aims to discuss the impact of coverage expansion on low-income patients served by FQHCs and which coverage type had the greatest impact on access to care.

One of the key findings of this study is that expansion of Medicaid was more effective in providing coverage to uninsured low-income populations than private insurance. The extensive benefits covered under Medicaid enabled enrollees to access preventative services, primary care services, and secondary care services. Coverage under Medicaid also ensured enrollees had limited or no cost sharing—a particularly important attribute of the program. These findings fit with those from a number of U.S. studies (Sommers, Baickers and Epstein 2012; Cunningham et al., 2013), which support the claim that Medicaid is an effective form of coverage to low-income populations. For example, findings of Dubay & Kenney (2001) and Long, Coughlin and King (2005) suggest Medicaid patients gained comparable access to primary care services to that of low-income patients with private insurance. The program's limited cost sharing also ensured enrollees were not at risk of generating high medical debt, which

might lead to financial hardship and thus have a negative impact on their ability to continue accessing care (Cunningham & Nichols, 2005; Clemans- Cope et al., 2013; Nguyen & Sommers, 2016). According to Clemans-Cope et al.'s (2013) analysis of 2003-2009 Medical Expenditure Panel Survey (MEPS), low-income patients with chronic diseases covered by Medicaid were less likely to be confronted with high share of cost when accessing treatment.

While the Medicaid program has clear strengths, a major weakness negatively impacting enrollees' ability to access care, particularly when seeking care from non-FQHC providers, is that not all primary care providers are willing to accept new patients with Medicaid. Several studies (Cunningham & Nichols, 2005; Cheung et al., 2012; Hennessey, 2013) have shown that non-FQHC primary care providers, such as private clinics and hospitals, were reluctant to accepted patients insured with Medicaid prior to the implementation of the ACA, given low payment rates received by these providers (Cunningham & Nichols, 2005; Hennessey, 2013; Price & Eibner, 2013). While the Affordable Care Act included a temporary provision, taking effect in 2013 and 2014, that increased the payment rates received by non-FQHC providers from Medicaid, several studies have found that this measure had mixed results. Polsky et al., (2015) found these increased payment rates improved the probability of Medicaid patients obtaining an appointment for non-FQHC primary care by 7.7 percent in 10 states. However Saloner et al., (2014) found that Medicaid patients were still more likely to obtain an appointment with FQHCs than with other primary care providers. They found 80 percent of FQHCs and 56 percent of non-FQHC providers scheduled appointments with Medicaid patients while 84 percent of FQHCs and 85 percent of non-FQHC providers were willing to schedule appointments with privately insured patients. Blumenthal, Abrams and Nuzum (2015) found similarly mixed results, but suggested that the increase in payment rates did not necessarily encourage more non-FQHC primary care providers to accept Medicaid patients. In agreement with Saloner et al. (2014) and Blumenthal, Abrams, and Nuzum (2015), this study found Medicaid enrollees continued to experience challenges when accessing care with non-FQHC providers, as a result of the provider's unwillingness to accept

them as new patients. Consistent with these studies, the findings in Chapter 4 suggest that administrators from Arizona and California felt the ACA's attempt to encourage non-FQHC providers to accept more Medicaid patient was not effective in their region. While low-income patients were able to gain coverage from Medicaid, theoretically improving their access to care, it did not necessarily do so in practice, as they had limited choice of providers willing to accept them as new patients. This suggests newly insured Medicaid patients were still at risk of not being able to access care, particularly if they could not find a non-FQHC primary provider willing to accept them as new patients, and if they lived in a region of the country not served by FQHCs. The ACA did not effectively address this weakness of the Medicaid program, even though many years prior to its implementation researchers such as Cunningham & Hadley (2004) and Cunningham & Nichols (2005), and (more recently) Price & Eibner (2013) had suggested the ability of Medicaid to provide improved access to care among enrollees was dependent on their ability to establish care with primary care providers.

This study suggests that private insurance was not effective in expanding coverage among low-income patients served by FQHCs, given their limited ability to afford co-payments associated with this coverage type. The ACA attempted to reduce the cost of private insurance in the marketplace by introducing additional regulations and by providing subsidies to lower monthly premium costs (Blumenthal et al., 2014; Collins, Rasmussen and Doty, 2014). Insurers in response were found to reduce the cost of certain plans by limiting the network of participating providers and hospitals, particularly those identified as the most affordable (Blumenthal et al., 2014; Collins, Rasmussen and Doty, 2014). In addition to the most affordable plans having limited networks, these plans had the highest levels of cost sharing via co-payments (Manchikanti et al., 2011). The most affordable plan available under the ACA was the 'Bronze' plan, which required enrollees to cover 40 percent of the cost of their care (White, 2013). While the federal government offered additional subsidies to privately insured enrollees to help cover this cost sharing, these subsidies did not apply to the most affordable plans (Bronze or Catastrophic)

but were reserved for higher-priced plans (e.g., the ‘Silver’ plan) (Manchikanti et al., 2011; Beeson, 2012; Abraham, 2014; Shin et al 2014; Haeder & Weimer, 2015; Shin et al., 2015a). According to Hoffman & Paradise, (2008), low-income populations are at risk of not being able to afford private insurance coverage since their household budgets are restricted and may already be struggling to cover basic needs. Paying for monthly premiums as well as additional costs associated with out of pocket expenses was found to be unrealistic for many of these households. Schoen et al., (2010) also suggested private insurance would continue to be unaffordable for many low-income patients under the ACA, as the most affordable plan would still require enrollees to pay a minimum of \$2,000 per person for their share of cost.

The findings in Chapter 5 (section 5.2) support previous research suggesting that private insurance remains unaffordable to many patients with low incomes, or that it fails to provide effective access to healthcare. Patients who gained coverage from the most affordable private insurance plans (e.g., Bronze) still experienced difficulties when accessing care as a result of being unable to pay for out of pocket expenses in addition to the limited network of providers willing to accept them. Several administrators articulated the belief that some low-income patients with private insurance would have been better off remaining uninsured as they would then be eligible to receive financial assistance to lower the cost of care. This statement is significant as it emphasizes the continued weakness of the private insurance program in the U.S. Although the ACA attempted to address the cost of private insurance through the inclusion of subsidies and additional regulations, affordability remained a major issue for low-income populations.

Given that only limited numbers of newly insured Medicaid patients can get access to non-FQHC providers and a significant proportion of the population remains uninsured, FQHCs remain a vital source of primary care for these populations under the ACA. FQHCs in Medicaid-expanded and non-expanded states were expected to continue serving a high proportion of uninsured patients (Fiscella & Geiger, 2014; Shin et al., 2014). Evaluations of the Massachusetts healthcare reform of 2006 suggested that extending coverage

under a mixed-insurance system does not eliminate the problem with uninsurance, and FQHCs continue to serve patients who lack insurance (Ku et al., 2009). According to Shin et al (2013), FQHCs in Massachusetts served 153,085 people, or 28 percent of the total uninsured individuals in the state prior to the state's health care reforms. After the implementation of the reform, FQHCs served 131,400 people, or 60 percent of the remaining uninsured population (Shin et al., 2013). Findings from this study (based on national data) support the findings of Ku et al (2009) and Shin et al (2013) based on the experience of Massachusetts, as FQHCs in the three case-study states—whether Medicaid expanded or not—continued to serve uninsured patients after coverage expansion took effect.

### **6.3.1 FQHC patients' access to secondary care under the ACA**

In respect of accessing secondary care services, this study suggests low-income patients gaining coverage from Medicaid or the most affordable private insurance plans continued to be confronted with difficulties. Several previous studies (conducted prior to the implementation of the ACA) have noted that low-income patients referred from FQHCs often struggle to access secondary care due to reluctance to accept these patients on the part of specialist providers (Gusmano, Fairbrother and Park, 2002; Cunningham, Bazzoli and Katz, 2008; Doty et al., 2010; Felland, Lecher and Sommers, 2013). FQHC clinicians found it difficult to refer their patients to specialist services in mental health, surgical, dental, and vision care (Cunningham, Bazzoli and Katz, 2008). Clinicians also struggled to refer their patients to medical and surgical services in areas of cardiology, orthopedics, and neurology (Felland, Lechner and Sommers, 2013). Cook et al., (2007) found FQHC medical directors reported difficulties in referring patients to secondary care services as specialists only selectively accepted patients depending on their insurance type. Ryan et al.'s, (2015) analysis of the 2009 and 2013 Commonwealth Fund Survey of Federally Qualified Health Centers also found FQHCs experienced difficulties securing appointments for their uninsured and Medicaid patients with specialists or sub-

specialists. Lack of access to specialist care is thus an ongoing problem that has existed since the 1970s (Hurley, Felland and Lauer, 2007)

Consistent with these previous studies, the majority of interviewed administrators acknowledged that, prior to the implementation of the ACA, referring patients to specialists was a challenge. They noted that specialists continued to be selective in their acceptance of patients in accordance with their insurance type, with only a select few secondary care providers willing to treat uninsured and Medicaid patients. In addition, patients with certain private insurance plans were unable to access secondary care services as a result of the high share of cost associated with their plan. Both Medicaid and privately insured patients faced limited networks of specialists willing to accept their coverage. These findings suggest that changes introduced under the ACA did not sufficiently extend the depth of coverage for these two forms of insurance type to include access to secondary care services. They also point to the need for reforms to extend provider regulation and oversight in order to address their unwillingness to serve patients with specific coverage types. The lack of access to secondary care services increases the burden on FQHCs' and to an extent the overall health system, as patients' health conditions are not being effectively treated. Even with FQHCs having high capacity to provide primary care, Cunningham & Hadley (2004) suggest it does not help reduce the high usage of emergency department services or unmet medical needs among these patients.

#### **6.4 The ACA's impact on FQHCs and implication on patients' access to care**

The ACA was expected to directly impact primary care providers, particularly FQHCs, through the expansion of coverage and the introduction of enhanced federal funding. Medicaid expansion was expected to result in FQHCs receiving increased patient revenue, as shown in the first logic model (see Figure 2.2) presented in Chapter 2. The model also indicated the distribution of enhanced federal funding would contribute to the expansion of these providers' capacity, which would improve their ability to serve more patients. However, the second

logic model (see Figure 2.3) showed the impact of the ACA on FQHCs' ability to meet patient need was more variable than anticipated, as the reform was not expanded uniformly across the country due to the limited expansion of Medicaid (Hennessey, 2013; Wright, Damiano and Bentler, 2014). This section further discusses the findings of the study related to the ACA's impact on FQHCs located in Arizona, California, and Texas in relations to their ability to serve their patients.

#### **6.4.1 The role of coverage expansion in strengthening FQHCs' ability to serve their patients**

According to a number of studies (Cunningham & Nichols, 2005; Beeson et al., 2012; Shin et al., 2013), FQHCs have continued to increase patient revenue from Medicaid over the last several decades, as they have attracted and retained patients with the coverage type—and this trend was expected to continue after the implementation of coverage expansion of the ACA. The findings of this study support this expectation, particularly in states that expanded Medicaid: FQHCs in Arizona and California experienced a significant increase in the proportion of patients served that were covered by Medicaid.

An important implication of this study's finding is that FQHCs' ability to provide care will fluctuate in parallel with their patient revenue. According to several studies (Hurley, Felland and Lauer, 2007; Katz et al., 2011; Hawkins & Groves, 2011; Ku et al., 2014), increasing the proportion of FQHC patients covered by Medicaid is of particular importance as it allows these providers to increase the sustainability of their funding and expand their capacity. This is possible as it was estimated that Medicaid paid 81 percent of the total cost of FQHC patient care in 2012 (Ku et al., 2014). It has major implications for FQHCs, as their revenue determines the overall number of patients they can serve (Ku et al., 2010). Reducing the proportion of FQHCs' uncompensated or subsidized care allows them to expand their capacity and serve more patients, including those without insurance (Rosenbaum et al., 2010; Hawkins & Grove, 2011; Beeson et al., 2012; Shin et al., 2012a; Shin et al., 2013). Serving more Medicaid

patients, thereby increasing revenue from the program, enables FQHCs to use grant funds to cover the cost of uninsured patients, and to double the number of patients served (Hawkins & Groves, 2011).

Shin et al. (2012a) investigated the implications of states deciding to expand Medicaid coverage to uninsured parents with children covered by the Children Health Insurance Program (CHIP) prior to the implementation of the ACA. They found that FQHCs in states providing Medicaid coverage to previously uninsured parents experienced an increase in patient revenue from the program, allowing them to invest in expanding their current physical spaces or opening additional sites, hiring more staff, and increasing their ability to offer more specialized care and services (Shin et al., 2012a). This study reinforces the findings of previous studies that have suggests revenue from Medicaid is better for FQHCs than other forms of insurance coverage, as they receive higher payment rates from Medicaid which – unlike most private insurers - covers most of the total cost of enrollees' care. In addition, administrators reported that revenue from Medicaid increased FQHCs' financial stability and sustainability, which is vital to remaining in business and continuing to serve their patients. Increase revenue from Medicaid also allows FQHCs to use grant revenue to further expand their capacity and serve more patients - an outcome that the ACA wanted to achieve.

In respect of the expanded role of private insurance in providing coverage to uninsured individuals, several scholars (Beeson et al., 2012; Shin et al., 2012b; Shin et al., 2013a) anticipated that FQHCs would not experience a substantial increase in numbers of newly privately insured patients, as they were more likely to gain coverage from Medicaid. This study is consistent with such expectations, finding that FQHCs in the three states did not gain significant numbers of newly insured patients with private insurance. The limited impact of private insurance on these providers means expansion of private insurance made a very limited contribution to increasing the capacity of FQHCs to deliver care to low-income populations. Moreover, unlike Medicaid payment rates, which cover the majority of enrollees' cost of care, a number of studies (Hurley, Felland and Lauer, 2007; Mannatt Health Solutions et al., 2007; Beeson et al,



2012; Ku et al., 2014) suggest FQHCs tend to receive low payment rates from private insurers. For example, in 2012, payment rates received from private insurance providers covered only 63 percent of the total cost of care of enrollees (Ku et al., 2014). As a result, FQHCs were obliged to absorb much of the cost of providing care to privately insured patients, causing them to use additional sources of funding to cover the loss (Ku et al, 2014). FQHCs were thought to receive lower payment rates from private insurance as they did not have the power to negotiate higher rates of compensation - unlike privately run office-based non-FQHC providers (Manatt Health Solutions et al., 2007; Beeson, 2012).

While the findings of this study suggest administrators were willing to serve newly insured patients with any type of coverage, they viewed private insurance less positively than Medicaid, given the low payment rates received by FQHCs from private insurers. The revenue received from private insurance did not cover the cost of care of enrollees. Low payments rates received from private insurance plans negatively impacted FQHCs, forcing them to use other forms of revenue to cover the financial loss. As funds reserved to cover the cost of serving uninsured patients had to be diverted to cover the financial loss caused by serving privately insured patients, FQHC's ability to serve uninsured patients is reduced. This has major implications for FQHCs' ability to care for individuals without coverage given the reliance of such individual on FQHCs to obtain primary care.

#### **6.4.2 The role of enhanced federal funding in strengthening FQHCs' ability to serve their patients**

Increasing patient revenue is vital for the sustainability of FQHCs' funding and their ability to meet higher demand for care and serve more patients. However, revenue obtained from grants particularly from the federal government have also been identified as an important source of income for these providers, particularly in respect of FQHCs' ability to expand capacity.

Federal government grants have long supported FQHCs, as they have enabled them to expand resources and cover the cost of care for underinsured and uninsured patients (Hawkins & Groves, 2011; Beeson 2012; Wright & Ricketts, 2013; Ku et al., 2014). Both the logic models in Chapter 4 show the distribution of enhanced federal funding contribute to FQHCs' ability to increase capacity. A number of studies have found increasing federal grant funding to FQHCs to expand capacity was particularly effective (Hoadley, Felland and Staiti, 2004; Shin, Finnegan and Rosenbaum, 2008). Lo, Sasso and Byck (2010) found grants from all sources invested in FQHCs from 1996 to 2006 enabled them to expand resources and increase capacity to serve more patients and better meet their needs. For example, every additional \$1 million of federal grant funding given to FQHCs enabled them to open an additional 1.5 sites and increase the probability of providing on-site 24-hour services by 1 percent; increase the probability of expanding mental health services by 3.2 percent; and increase their workforce (Lo, Sasso and Byck, 2010). In addition, grant funding also help cover the cost of uncompensated care from serving uninsured patients (Lo, Sasso and Byck, 2010). Shi, Lebrun & Tsai's (2010) study investigated the impact of the Health Center Growth Initiative (HCGI), in which Former President Bush's administration provided dedicated funding for the addition or expansion of 1,200 new health centers. The authors concluded that the Initiative was successful in achieving its aim, as it enabled the physical growth of health centers across the country.

The findings in Chapter 4 and 5 supports the premise that the distribution of enhanced federal funding under the Bureau of Primary Health Care (BPHC) grants contributed to increasing the overall revenue of these providers. This study found the revenue (in real value) from enhanced federal funding of FQHCs in the three states, particularly California, increased from 2011 to 2015, thus improving their purchasing power and increasing their ability to expand their capacity. However, the findings of this study, along with others, also suggest enhanced federal funding is not a panacea when expanding the capacities of FQHCs and making their operation more sustainable. Several studies investigating the impact of federal grant funding on FQHCs found

growth associated with additional revenue from grants tended to vary, causing some sites to benefit more than others. For example, Katz et al (2011) found FQHCs in Little Rock, Arkansas and Greenville, South Carolina, received less than \$100,000 to support their expansion, while other communities that had extensive FQHC infrastructure such as Boston, Massachusetts; Seattle, Washington; Cleveland, Ohio; and Phoenix, Arizona received larger sums of grant funding (Katz et al., 2011).

According to the findings of Katz et al. (2011), FQHCs' ability to obtain federal funding was highly dependent on their ability to obtain assistance and support from other outside organizations, such as state primary care associations, community health coalitions, local governments, and policy makers. For example, FQHCs in Little Rock, Arkansas were unable to effectively obtain federal funding until they were able to gain local support (Katz et al., 2011). Hurley, Felland and Lauer's (2007) evaluation of the health center capacity in 12 nationally representative metropolitan communities found physical growth was more likely in areas that had additional support from the state, as observed in Boston, Massachusetts; Miami, Florida; and northern New Jersey. Some FQHCs were able to increase their services, and their ability to serve their patients, by forming stronger collaborations with other local health care providers (Hurley, Felland and Lauer, 2007).

This study also found the ACA's enhanced federal funding contributed to the acceleration of capacity expansion among FQHCs, and that growth varied among sites, determined by the amount of additional funding received. However, this study, supported by others, suggests the way enhanced federal funds are distributed to FQHCs leads to some providers benefitting more than others. As a result, some FQHCs are able to expand and improve their facilities, positively impacting patient care, while others had limited opportunities.

#### **6.4.3 Impact of workforce shortage on FQHCs' growth**

The first logic model suggests the combination of increased patient revenue and enhanced federal funding would likely improve FQHCs' ability to expand their

capacity nationally. However, the changes in implementing the ACA and the partial expansion of Medicaid identified in the second logic model suggest FQHCs in expanded states were more likely able to expand their capacity. However, a more crucial finding is that all FQHCs—irrespective of whether they experienced a significant increase in patient revenue and received additional enhanced federal funding—faced difficulties expanding capacity as a result of clinical workforce shortages. A number of studies identified recruiting and retaining staff members by FQHCs would be a major challenge, impacting their capacity (Hurley, Felland and Lauer, 2007; Doty et al., 2010; Savageau et al., 2011).

FQHCs' inability to increase their clinical workforce had major implications for their ability to meet patient demand and need for health care. According to Kirch, Henderson, and Dill (2012), workforce shortages would negatively impact providers and their patients' nationwide, inhibiting care, as the supply of care would outstrip demand. An analysis of Abrams et al.'s, (2014) nationally representative survey, The Commonwealth Fund 2013 Survey of Federally Qualified Health Centers, showed 83 percent of the 679 administrators surveyed anticipated personnel shortages would be a problem under the ACA and would impact patients' access to care. Moreover, 58 percent of administrators were found to be concerned about their ability to provide quality care to patients given their limited workforce (Abram et al., 2014). Further, the inability of these providers to hire more staff members would restrict the acceptance of new patients (Hammer, Phillips and Schmidt, 2010).

This study supports others' claims that clinical workforce shortages threatened patients' ability to access care from FQHCs. As observed in some FQHCs, patients experienced longer waiting periods for appointments. Other FQHCs acknowledged their inability to accept new patients, even those that gained coverage from Medicaid. This impacted patients: as discussed in Section 6.3, individuals with the coverage type frequently struggled to find non-FQHC providers willing to accept them, causing them to have limited choice of providers for healthcare services.

One factor identified by several studies that limit the ability of FQHCs to hire more clinical staff is their inability to compete with non-FQHC providers' offer of high salaries and lucrative benefits (Rosenblatt et al., 2006; Cunningham, Bazzoli and Katz, 2008). The national median salary for primary care physicians in 2012 exceeded \$200,000 according to the Medical Group Management Association (Japsen, 2013). While there is no comparative data on physician salary for FQHCs, anecdotal reports have found the salaries of primary care physicians working in FQHCs are much lower than non-FQHC providers, given their limited financial capacity (Fiscella & Geider, 2014). This was a common problem identified by this study. The majority of administrators from the three states acknowledged their inability to compete with non-FQHC providers' as they were unable to offer high salaries and lucrative benefits even with the improvement in their overall revenue as a result of increasing income from patient coverage and receiving enhanced federal funding. This had major implications on FQHCs' ability to expand and improve their services. Being unable to hire more clinical staff members was a barrier to expanding their physical spaces and introducing additional healthcare services, but also to their efforts to improving their delivery of care.

## **6.5 Broader implications of the study**

The global health community, along with the World Health Organization (WHO) and the United Nations (UN), has encouraged governments to work towards the goal of universal health coverage (UHC). UHC is now widely accepted as a key strategy for strengthening health systems. It ensures healthcare is distributed effectively and equitably throughout the population, improves access to care, and ensures individuals are not at risk of experiencing financial hardship when accessing care (Rashford 2007; Kutzin, 2013; Ji and Chen, 2014; Wong, Allotey and Reidpath, 2016; Voorhoeve et al., 2016). The recent adoption of the Sustainable Development Goals (SDG) further encourages governments to move their health system closer to achieving UHC, and how this is financed is of key importance. A number of studies (WHO, 2010; Kutzin, 2012; WHO, 2015) have

found many health systems approaching UHC rely heavily on compulsory public funds. A few countries, such as the Netherlands and Switzerland, have managed to achieve near UHC by depending more on private funding from compulsory private insurance (Frank & Lamiraud, 2009; Okma & Crivelli, 2013). This study contributes to the ongoing debate on the effectiveness of public and private funding sources' ability to move health systems closer to achieving UHC. It presents the U.S.'s experience of expanding coverage in a mixed finance insurance system through the implementation of the ACA. Discussion on the challenges of implementing national policy in a multi-government system and the need to consider different stakeholders' impact in the process is also presented. The following sections discuss the broader implication of the study.

### **6.5.1 Expanding coverage in a mixed-insurance system and government regulations**

This study's findings suggest the U.S.'s attempt to expand coverage and move towards UHC through a mixed-insurance system had varied results.

Immediately after the provisions to expand Medicaid and private insurance took effect in 2014, the ACA successfully began to expand coverage. Within a year, an estimated 10.8 million people obtained coverage from the publicly funded Medicaid program and an estimated 11.7 million people gained private health insurance (Sommers et al., 2015).

The increase of people gaining coverage from Medicaid and private insurance can be attributed to the increase role of government regulations under the ACA. In respect of the Medicaid program, this study's finding found it continued to be an effective form of coverage for low-income populations served by FQHCs as it provided comprehensive coverage while ensuring enrollees were not at risk of generating high medical debt associated with cost sharing that could impact their access to care. Extensive federal and state government regulations on the Medicaid program made this possible (ACP, 2008; Taylor, 2012; Center for Medicare & Medicaid, 2017). In addition, the ACA successfully expanded Medicaid's eligibility requirements, which enabled many

more people able to obtain coverage from the program. Before the implementation of the ACA, the only groups eligible for Medicaid cover were low-income families, individuals receiving supplemental security income (SSI) (low-income people ages 65 or older, blind, or disabled), and qualified pregnant women and children (Gruber and Yelowitz, 1999; Medicaid.gov, 2017). After the implementation, all American citizens and certain immigrants became eligible for coverage, the only condition being an annual income below 138 percent of the FPL (Ku et al., 2010; Hawkins & Groves, 2011; Manchikanti et al., 2011; Taylor 2012). This was a major accomplishment with lasting effects: if they resided in Medicaid-expanded states, the ACA ensured low-income individuals could gain health insurance coverage.

In respect of private insurance, the ACA introduced additional federal regulations, a feat attempted by the Bush Sr. and Clinton administration (Quadagno, 2014) that enabled many uninsured people to also gain coverage from it. This was accomplished by the ACA through the establishment of the private insurance marketplace, which increase the accessibility and, to an extent, lower the cost of coverage through new regulations and the distribution of subsidies (Manchikanti et al., 2011; Rice et al., 2014; McDonough, 2015).

However, while millions of people in the U.S. gained coverage under the ACA, the expansion of the Medicaid program and private health insurance did not eliminate the issue of uninsurance. A year after coverage expansion took effect in 2014, an estimated 25 million working-age people remained without health insurance (Collin et al., 2015; Hayes et al., 2015). This could be attributed to the limited expansion of the Medicaid program. It has been suggested the success of expanding Medicaid to cover uninsured low-income individuals requires the full support of the federal and state governments (Haeder & Weimer, 2015). However, due to the Supreme Court case decision that made Medicaid expansion optional, not all states—such as Texas— implemented the provision. This suggests, where federal and state governments share governance over a publicly funded coverage program, as in the U.S., there must be agreement to, and full support of, strategies to expand coverage (Weissman et al. 2008; Hennessey, 2013). The WHO & World Bank (2010) and Ghebreyesus

(2017) have also suggests the need for government bodies to be willing to pursue a national agenda supporting UHC. Without a full national support, this and other study's findings (Long et al., 2014a,b,c) suggest a partial expansion causes certain regions of the country to experience a greater increase in the number of insured people, than those that did not. Therefore, coverage cannot be effectively expanded to the entire population and inequities will persist.

In addition, the study's finding also suggests private insurance from the marketplace continued to be inaccessible to many people particularly with low-income population unable to gain coverage from Medicaid. A number of studies (Kutzin, 2001; Colombo & Tapay, 2004; Kutzin, 2012; Jamison et al., 2013) suggest extensive government regulations are needed to enable private insurance expand coverage, particularly for low-income populations. For example, the Netherlands and Switzerland have been able to expanded coverage and achieve near UHC through a reliance on private health insurance by heavily regulating private insurers (Enthoven & van de Ven, 2007; Frank & Lamiraud, 2009; Okma & Crivelli, 2013). For example, the Swiss government mandates compulsory health insurance, and mechanisms are in place to automatically enroll individuals that do not obtain coverage (Herzlinger, Richman and Boxer, 2007). The costs of monthly premiums are the same for all those within the same age group, geographic area, and type of health plan (Frank & Lamiraud, 2009). In addition, the Dutch and Swiss governments also minimize the risk of underinsurance and individuals generating high medical debt by minimizing the cost of private insurance through subsidies and by ensuring premiums and cost sharing have maximum limits (Schoen et al., 2010; Okma & Crivelli, 2013). While the ACA is similarly designed and introduced new federal regulations on private insurance, it lacked these extensive regulations (Herzlinger, Richman and Boxer, 2007; White 2013). For example, according to some, the individual mandate under the ACA was not effectively implemented as it had weak regulations as it contained various loopholes that allowed certain groups of people (individuals claiming financial hardships, individuals uninsured for three months or less, American Indians, and prisoners) to remain without coverage (Gottschalk, 2011; White, 2013; Rice et al., 2014). Also, the



penalty for individuals that remained uninsured in the U.S. was minimal and was based on tax penalties (Manchikanti et al., 2011; Rice et al., 2014). It did not have any mechanisms such as those found in Switzerland where uninsured people would be automatically enrolled to a private insurance plan.

Affordability of private insurance in the U.S. also remained a problem for low-income individuals. This study suggests it was sometimes better for some low-income patients served by FQHCs to remain without private coverage, as the organization could find ways to cover the cost of their care. As presented in Chapter 5, the most affordable private insurance plans under the ACA fail to ensure adequate access to care for low-income individuals, as low-income FQHC patients were confronted with high out-of-pocket expenses at the point of care. As a result, these individuals risk generating high medical expenses and potentially experiencing financial hardship. This finding supports the analysis of Schoen et al. (2010), who suggested that newly insured individuals with private insurance under the ACA would risk being unable to access care and/or would experience financial hardship, as cost sharing would remain high by international standards.

### **6.5.2 Regulations on healthcare providers in a mixed-insurance system**

This study's findings suggest healthcare providers should be extensively regulated in a mixed finance health system. According to Williams (1988) and Colombo & Tapay (2004), in a mixed-finance health system where physicians can practice in both private and public sectors, they may be drawn to serving individuals with more lucrative health insurance. Physicians must consider meeting the needs of patients; however, their practices must remain financially viable (Hennessey, 2013; Long et al., 2013). Therefore, it is essential for governments to ensure there are sufficient providers willing to accept patients with any coverage type. As discussed in Chapter 4, it was anticipated that some newly insured patients could find it difficult to access care, particularly those with Medicaid seeking care from non-FQHC providers. Often, these providers

choose not to accept and serve patients with the coverage type (Cunningham & Nichols, 2005; Price & Eibner, 2013; Hennessey, 2013) given the program's low payment rate to non-FQHCs (Cunningham & Hadley, 2004; Hoffman & Paradise, 2008; Hennessey, 2013). Rather than requiring all non-FQHC providers must serve newly insured Medicaid patients, the ACA included a temporary provision increasing their payment rate for two years. This strategy was found to have mixed results; this and other study's (Saloner et al., 2015; Blumenthal, Abrams, and Nuzum, 2015) findings suggest newly insured patients with Medicaid continued to have difficulties accessing care from non-FQHC providers. According to administrators from the three states, non-FQHC providers in their region continued to turn away some new patients with Medicaid, as they preferred to serve those with private insurance and receive its higher payment rates.

This study's findings suggest the ACA only partially addressed this issue. For example, Medicaid patients and those with the most affordable health insurance—especially in regions with limited number of FQHC providers—faced restricted options for healthcare providers given the limited number of non-FQHC providers were willing to accept them. Therefore, patients were at risk of being unable to find providers willing to serve them, even with health insurance. While FQHCs are required to serve everyone, regardless of their coverage type, federal regulations state they must serve Medicaid patients (Heisler, 2016). Federal regulations also ensure any services provided to enrollees are reimbursed at a rate that nearly covers their cost, meaning FQHCs prefer serving Medicaid patients (Beeson et al., 2012; Taylor, 2012). These regulations put in place on FQHCs by the federal government therefore have ensured Medicaid patients are guaranteed the ability to establish and access care with FQHCs. These forms of regulations however remain non-existent for non-FQHC providers under the ACA.

The ACA was partially successful in expanding health insurance coverage across the U.S. and improving access to care. However, a lack of full adoption of the provision that expanded Medicaid and continued limited regulations particularly on private insurance led to a large number of people remaining

uninsured and underinsured. This suggests, in order to meet the difficult challenge of moving towards UHC in a mixed-insurance market, full support by all government bodies part of implementation and extensive government regulations on both the health care delivery system and the health insurance systems are essential.

### **6.5.3 The role of multi-governance and its impact on policy implementation**

From the outset, the ACA faced challenges in fully achieving the intended coverage expansion. First, a Supreme Court decision-making Medicaid expansion optional for states limited its scope. As a result, low-income people living in 25 states in January 2014 that did not expand Medicaid faced more limited choices for obtaining affordable coverage than had been planned. Second, the design of the coverage expansion was complex. It was intended to include three mechanisms for expanding coverage: 1) expansion of the Medicaid program; 2) expansion of private insurance (through increased subsidy and regulations to diminish insurers' ability to deny coverage, e.g. for pre-existing conditions); and 3) enforcement of an individual mandate. Each strategy had specific goals that contributed to expanding coverage, but their respective abilities to do so were affected by the success of the others. The success of implementing these strategies also relied on multiple stakeholders from different levels of government and sectors. For example, the federal agency, Internal Revenue Services (IRS), had to manage the enforcement of the individual mandate by checking eligible citizens and immigrants' coverage status in their tax return. The Centers for Medicare and Medicaid Services (CMS) was required to work together with state governments to administer and oversee the expansion of the Medicaid program. The expansion of private insurance required the development of a new health insurance marketplace in all states to enforce regulation on insurance companies wanting to sell their plans.

This study's findings suggest the implementation of coverage expansion was indeed complex and that decisions made by stakeholders from a different levels of government bodies and non-governmental stakeholders affected how the policy was implemented in practice. For example, the analysis of interview data suggests that FQHCs in Arizona, California, and Texas were affected differently by coverage expansion depending on how it was implemented in their respective states. The state governments of Arizona and California decided to expand Medicaid, thus allowing low-income uninsured individuals to gain coverage from the program. The findings of this study suggest that the majority of administrators believed this made a significant impact on their FQHCs, as it increased the proportion of patients they served with the coverage type. By comparison, the decision of the Texas state government not to expand Medicaid caused FQHCs to be less affected by coverage expansion. The two Texan FQHCs in this study experienced very little change in the proportion of patients they served with Medicaid. Furthermore, this study's findings also suggest decisions and actions made by stakeholders involved with the expansion of private insurance significantly affected the extent of its uptake by low-income patients served by FQHCs in the three states. It was found that the uptake of private insurance was limited, as it remained unaffordable. Some patients that purchased the most affordable private insurance plans remained underinsured and at risk of experiencing additional financial hardship, especially when requiring specialist care.

Consistent with Pressman & Wildavsky's (1973) view, the complexity of the ACA may itself have limited its achievements. Discussed in chapter 2, section 2.5 their analysis of the Economic Development Administration (EDA) policy suggested a complex implementation process increases the risk of a policy not fully meeting its goals. Another factor identified by Pressman & Wildavsky (1973) that could negatively impact policy implementation was a large number of stakeholders taking part in the process. They posit having many stakeholders increases the need to make more decisions that require approval. It can also create more disagreements, which contribute to delays in

the implementation process. Therefore, it is ideal to minimize the number of stakeholders involved in the implementation process.

Pressman & Wildavsky's (1973) theoretical model provides insight into the pitfalls associated with complex policy designs and how they increase the difficulty of their implementation. Their work has helped illuminate the challenges associated with increased numbers of active stakeholders in the implementation process and how an action or decision made by one actor—at any point in the process—can cause major disruptions or progression. To an extent, the ACA's implementation was an example of what should be avoided as advocated by Pressman & Wildavsky. The design of coverage expansion could have been simpler, by minimizing federal and state agencies making decisions about Medicaid expansion, multiple private insurance companies making decisions about expanding private coverage, and addressing loops holes in the policy that made it possible for people to remain without coverage. However, Pressman & Wildavsky's model fails to acknowledge that policy implementation in the U.S. requires the engagement of multiple stakeholders across different governmental bodies and nongovernmental organizations. According to several scholars (Hall & O'Toole, 2000; Oliver, 2006; Doonan, 2013), the federal government is dependent on the support and abilities of state governments to implement policy in their jurisdictions. These stakeholders are better equipped to implement policy as they have the necessary resources, expertise and infrastructure to enact policy within their jurisdiction (Litman & Robbins, 1991; Nathan, 2005; Krane, 2007; Doonan, 2013). State governments can also tailor policies to better meet the needs of their population to achieve optimal outcomes (Litman & Robbins, 1991; Doonan, 2013). The U.S. federal government has finite resources, expertise, and capacity to enact policy in all fifty states, meaning it is nearly impossible to minimize the number of stakeholders involved in the implementation process.

While this study acknowledges the important role of stakeholders at the federal and state levels, it also highlights the significant role of local-level stakeholders in the implementation process through the perspective of FQHC administrators. These administrators were an integral part of how the ACA

impacted the population, as their decisions and actions affected its progress and reach. For example, the implementation of the ACA did not include a provision for automatically enrolling people to Medicaid or private insurance. This study found that administrators from all FQHCs across the three states helped extend the reach of coverage expansion by hiring non-clinical staff to conduct outreach and provide assistance with the coverage enrollment process. Furthermore, they helped patients who remained uninsured, or ineligible for any form of coverage, to seek out other limited forms of coverage funded by their local county government or financial assistance programs to cover the cost of care such as grants given by local business groups.

The work of several scholars (Weatherley & Lipsky, 1977; Hill 2006; Lipsky, 2010; Gale et al., 2017) is consistent with this study's finding that local level stakeholders, such as FQHC administrators, are integral to the implementation process. Their importance arises out of their position at the end of the process and their responsibility to deliver the policy "on the ground" to the target population (Weatherley & Lipsky, 1977). Rather than viewing local-level stakeholders as agents of policymakers that simply follow directions to implement policies, several scholars particularly Lipsky (as discussed in Chapter 2, section 2.5) have also posited that they have the power to influence how it is delivered. This is given their unique role of needing to balance the demand of enacting policy and meeting the demands of the community they serve through delivering services (Lipsky, 1980; Lipsky, 2010). As a result, it is inevitable that there are instances where SLBs' actions might diverge from policy in order to meet the demands placed upon them (Lipsky, 1980; Hill, 2006; Lipsky, 2010).

This study's finding somewhat supports Lipsky's claim. FQHC administrators were found to make decisions that impacted the delivery of coverage expansion and improved access to care. However, the role of FQHC administrators within the implementation the ACA sits better within the concept of street-level diplomats (SLD) introduced by Gale et al. (2017). Unlike SLBs who use "hard power", SLDs apply "soft power" as they depend on their relationships, negotiation skills, and expertise to adopt and set interventions

from policy to better fit their local environments (Gale et al., 2017). FQHC mid-level managers and executive directors from the three states used their discretionary power to introduce solutions to problems within their organizations. However, they also depended highly on their relationships with other local-level stakeholders from government and non-government organizations in their regions to solve problems introduced and exacerbated by the ACA. They depended on their ability to negotiate and influence others, rather than using “hard power”, to find solutions to the system-wide problems they faced as providers. This was exemplified by TXFQHC2’s ability to obtain grant funding from a local Foundation and the decision made by multiple FQHCs across the three states to work with their local government to obtain funding to cover the cost of care for the uninsured. Administrators could not change the decision of their state government, but they could respond to it in a way that minimized its impact.

This process complicated the implementation of the ACA. However, for FQHC administrators to meet their organizational goal of serving low-income communities and complying with the policy, it was necessary. As stated above, Pressman & Wildavsky’s model stresses the need to minimize the number of stakeholders in the implementation process to better meet the aims of the policy. They also emphasize the importance of higher-level stakeholders and the need for them to direct the process at the local level. However, this study suggests local level stakeholders such as FQHC administrators were as much a part of the ACA’s implementation process as those at the federal and state level located in the earlier stages of the implementation chain. Without the actions of FQHCs, the policy’s reach, particularly to low-income populations, may have been limited further. This exemplifies the importance of FQHC administrators as described by Lipsky’s street-level bureaucrat model, in the context of a multi-governance system when implementing policy.

This study contributes to our understanding of policy implementation in the context of a multi-governance system, as it highlights that a single stakeholder’s decisions and actions cannot direct the implementation process. In respect of the U.S. context, this study identifies the difficulties faced when

implementing the ACA's coverage expansion from the outset, given the complexity caused by the multiple stakeholders taking part in the implementation. It emphasizes the need to have strong leadership from different levels of government bodies with clear direction that can effectively collaborate with various stakeholders during different phases of the implementation. It also suggests leadership needs to remain flexible and work collaboratively with stakeholders to solve problems that arise during the implementation process.

## **6.6 Limitations of the study**

The study utilizes several forms of data, which presented various perspectives on the Affordable Care Act's impact on FQHCs' ability to provide care to their patients. While using several forms of data for this study was a strength, the process also had its limitations, which are discussed in this section.

The first limitation of this study arises from the use of Uniform Data Systems (UDS) data, which is publicly accessible and can be obtained through the Bureau of Primary Health Care website. Many studies have used UDS data as it provides comprehensive numerical data on FQHCs regarding their patient population and characteristics, finances, operations, and workforce. However, a limitation in using UDS data arises from the way in which it is collected. Administrators self-report data about their organization to Health Resources and Services (HRSA), and this data are not audited (BPHC, 2016). As a result, data reporting may contain errors. Another limitation with using Uniform Data System is the minimal amount of information collected specifically about the ACA, and particularly in respect of the amount of revenue received from enhanced federal funding. UDS data does not provide disaggregated data on the exact amount of enhanced federal funding FQHCs received, providing only the amount of funding received from capital grants. No data was included that identifies the amount of revenue received that supported operational expansion. As a result, it was unclear how much enhanced federal funding under the ACA was received by FQHCs in the three states. Another limitation



with using UDS data is its lack of data on the number of patients seeking care from FQHCs that were unable to receive care. Shi, Lebraun and Tasi (2010) also acknowledge this limitation with the data, as they were unable to determine whether FQHCs are able to effectively meet the needs of all those seeking care from them, or if they lose potential patients as a result of long wait periods or an inability to secure appointments. Lastly, UDS data does not collect information about FQHCs' uninsured and undocumented populations. Therefore, it was impossible to determine the proportion of people that were eligible to obtain coverage from the ACA, but chose to remain without coverage due to cost, immigration status, or personal choice.

The second limitation of this study relates to the case study approach, which necessitates a limited selection of study subjects. The ten FQHCs selected were located in urban regions of Arizona, California, and Texas. The state of Arizona and California were selected as they expanded the Medicaid program, and Texas, as the state did not. While the selected states had similar characteristics and enabled the study to investigate the impact of their decision to expand Medicaid on FQHCs, limitations arise from differences in state populations, demographics, economy, and politics. While all FQHCs focused on serving low-income and underserved populations in their region, their patient demographics, organization and leadership, political environment within the organization and local community, and finances also varied. As a result, the findings of this study could not be generalizable to states in other parts of the country. In particular, the experiences of this study's selected FQHC administrators provided a distinctly urban perspective, which could not be applied to FQHCs in rural settings, given then very different opportunities and challenges experienced by rural health during the implementation of the ACA. Moreover, the experiences of the studied FQHCs may be particularly unique as they are all "border states" with Mexico. Border States tend to have different experiences, given the large impact of immigration and immigration policies on FQHCs.

The third limitation of this study was the process of selecting and conducting the interviews. Interviewee selection was based on the aim of

interviewing an executive director and a mid-level manager in each of the selected FQHCs. However, given the small pool of those available in each FQHC who could be interviewed, scheduling conflicts, and some administrator's unwillingness to be interviewed, this was not always possible. While there was a systematic process of contacting participants, scheduling appointments, and conducting interviews using the same questions to all participants, the amount of data collected and the quality of data varied. For example, 22 of the interviews were conducted face-to-face, while one was conducted by telephone, introducing possible inconsistencies in the responses. Another limitation of semi-structured interviews is the inability to replicate interview conditions, given the number of influencing factors (Ritchie & Lewis, 2003). For example, when the interviews were conducted may have influenced the type of information collected from administrators. As the interviews took place between July and September 2015, the interviewees focused noticeably on changes in demand for care rather than other topics, as this was their main issue at the time, given the expansion of coverage taking effect in 2014. Further, uncontrollable factors such as the interviewer and interviewee's states of mind, rapport, and responses passing between the parties may have impacting the collected data (Ritchie & Lewis, 2003). Another factor may have been the interviewee's schedule and available time. In addition, the interviewer's background knowledge of FQHCs as a result of work experience may have also influenced interviewees' willingness to participate and speak openly about their experiences, given a perceived level of familiarity with the topic. Lastly, financial resources, time, and capacity were also a potential limitation of the study, as the primary investigator conducted all the interviews.

## **6.7 Implications for future research**

While this thesis contributes to our understanding of FQHCs' ability to care for their patients under the ACA, it also suggests areas for further inquiry. Medicaid expansion allowed many low-income uninsured patients to gain coverage in Arizona and California. This led to significant changes in FQHCs' patient

revenue in the two states as they experienced an increase in Medicaid patients and a decrease in their uninsured population. While it was expected that FQHCs would gain more Medicaid patients, further inquiry is needed to understand the factors that caused them to minimally gain newly insured patients with private insurance. It was unclear whether former uninsured patients gaining private insurance left FQHCs to establish care with another primary care provider. It was also unclear whether the remaining uninsured patients, who were eligible for private insurance, chose to remain uncovered because FQHCs would continue to serve them. Little is known of the factors restricting the increase of newly privately insured patients in FQHCs. As the policy of Medicaid expansion remains in contention, private insurance may become an even more important source of patient revenue in the future; therefore, this should be better understood. In addition, it would be beneficial to investigate how to encourage private insurers to offer better payment rates to FQHCs in order to reduce the need for them to subsidize care to patients with this coverage type.

Another interesting area emerging from the study as requiring further inquiry is access to secondary care services. FQHC administrators from the three states extensively discussed the ongoing challenge of referring patients to specialized care, regardless of insurance type (Medicaid, private insurance, uninsured). Coverage expansion was found to exacerbate this, given increased demand from newly insured patients who were discovering complex health conditions, requiring secondary care. Some FQHCs have begun to incorporate on-site access to secondary care services, although regulation and financial constraints limit the establishment of these services, raising questions about the sustainability of this model. Access to secondary care services among patients with complex health condition will be increasingly important, given the ACA's focus on improving health outcomes. In addition, the ACA plans to introduce a new payment scheme linking patient health outcomes to payment rates. Therefore, FQHCs' ability to refer patients to secondary care services, improving the health of their patients, will be critical when maintaining financial security.

Lastly, the study focuses entirely on the impact of the ACA on FQHCs in urban areas and, as one of the administrator in Texas stated, their experience after ACA implementation will be very different from those in rural areas. It is essential to understand the impact of the reform on FQHCs in rural areas given the factors and challenges unique to that environment. For example, travelling long distances to access care is a common problem for rural patients, one those living in urban areas generally do not confront. Expanding the workforce and referral to secondary care is a challenge for many urban FQHCs and even more so for FQHCs in rural areas, leading to vastly differing capacities and thus major implications for patient care. Further inquiry on the topic will improve the understanding of the ACA's impact on the capacities of these providers and their need to better serve patients in their region.

# Chapter 7: Conclusion

## 7.1 Summary of thesis

There is ongoing debate on the most effective ways for governments to expand health care coverage for their populations and thus move their health systems toward achieving universal health coverage. In respect to finance, many health system experts consider public funding sources as more effective than private sources. Moreover, experts consider it to be particularly challenging to move towards UHC in the context of a mixed public/private-funded health care system. The U.S.'s attempt to expand coverage through the ACA provides the opportunity to examine one such effort, including efforts to expand both public and private health insurance simultaneously. It also provided the opportunity to examine the implementation process and the policy's impact on local level primary care providers. Therefore, this thesis was able to examine the Affordable Care Act's impact on FQHCs' ability to care for their patients with the consideration of the affects related to expanding coverage particularly to low-income populations.

Chapter one provided an introduction to the study's topic and relevant background information on the American health insurance system and the safety net system that provides care to low-income patients. This helped locate where Federally Qualified Health Centers (FQHCs) is located within the American health system. It also provided the rational for the study's decision to investigate the impact of the ACA through the perspectives of these providers.

Chapter two provided a critical review of current literature relevant to the study and identified knowledge gaps towards which the findings of this thesis aim to contribute. It provided the rational for health systems to work towards achieving universal health coverage and how governments can use different funding sources. The chapter presented the current debate on the strengths and weaknesses of funding health systems to move towards UHC through public and private funding sources. Although the U.S. has yet to achieve UHC in its health

system, there have been many attempts to expand coverage across the country. This chapter discusses the challenges of the American experience with this process and highlights the ongoing debate around achieving this endeavor. One such challenge is related to the policy implementation process. Therefore, this chapter included a discussion of several policy implementation theories to help explain the factors that could cause the process to be challenging particularly in a multi-governance system. This chapter continued by presenting current literature on the Affordable Care Act and its impact on FQHCs. Two logic models were developed with this process to help organize what is known about the topic and the gaps. The first logic model established the expected impact of the ACA on FQHCs and their ability to care for their patients. The second logic model illustrated the implementation of the policy in practice and its impact on these providers. Unlike the first logic model, the second logic model highlighted the complexity of implementing the policy and the different outcomes it produced for FQHCs in different parts of the country. Developing these two logic models provided the opportunity to conduct a comparative analysis. They also helped identify significant decisions and actions by different stakeholders that impacted the implementation process.

Chapter three reflects on the mixed method multiple case study approach undertaken in this thesis. It includes justification for the selected method, case studies, data sampling, and analysis. The following two chapters (4 and 5) presented the empirical findings of the study. Chapter four explored the ACA's impact on FQHCs located in two Medicaid-expanded states (Arizona and California) and one non-expanded state (Texas). It described the impact of the reform on these providers' patient coverage, demand for care, and revenue. The chapter also demonstrated that FQHCs in expanded states were noticeably affected differently by the policy from FQHCs in non-expanded states. Chapter five further explored the perceptions of administrators from the three states by understanding how they responded to these changes and the actions they took. The findings suggest Medicaid expansion contributed to the abilities of these providers to better serve the needs of their patients, as it enabled uninsured patients to gain coverage that improved their access to care. It also caused

FQHCs to experience an improvement in patient revenue, allowing them to expand their capacity. By contrast, the expansion of private insurance minimally impacted these providers, as many low-income uninsured patients did not gain coverage from it. While administrators from the three states supported the expansion of Medicaid, the study found further reform of the program and private health insurance is essential, as issues of access to care remain, particularly for services beyond primary care. Chapter six discusses the findings of this study in greater depth, by engaging with other studies. It also identifies the limitations and broader implications of this study, as well as directions for future research on this topic. This conclusion (Chapter 7) aimed to revisit the research question and offer a summary of the findings in relation to it. It also provides an explanation on how this thesis contributes to the current literature.

## **7.2 The research question and the findings of the study**

The aim of this study was to examine the Affordable Care Act's impact on the ability of Federally Qualified Health Centers (FQHCs) in Arizona, California, and Texas to meet the healthcare needs of people with limited healthcare access. To understand the effectiveness of the U.S.'s attempt to expand coverage and improve access to care, particularly among low-income uninsured individuals through the ACA, this study chose to investigate the impact of the reform through the perspective of the safety-net primary care providers, Federally Qualified Health Centers. FQHCs are important sources of care for millions of low-income, uninsured, and disadvantaged people. Investigating the impact of the reform on FQHCs would provide an opportunity to determine the strengths and weaknesses of the methods chosen to expand coverage, particularly among low-income populations. It would also determine how effectively the ACA contributed to strengthening the FQHCs' ability to meet the needs of their patients. The following is the research question posed in this study:

*To what extent did the ACA impact the ability of FQHCs to provide primary care to low-income populations?*

The study was conducted by descriptively analyzing quantitative data from Uniform Data System, and thematically analyzing 23 interviews obtained by interviewing administrators from 10 FQHCs in Arizona, California, and Texas.

The enactment of the Affordable Care Act attempted to increase health care coverage in a mixed health insurance system by simultaneously expanding the publicly funded Medicaid program and the establishment of a marketplace that offered government-regulated private health insurance. These two forms of coverage account for much of the existing mixed-insurance system, and were expected to extend coverage, contributing to the FQHC's ability to provide care to their patients. The findings of this study suggest that the expansion of the publicly funded insurance program, Medicaid, was a key element of the ACA that contributes to the ability of FQHCs to serve their patients, although the coverage type continues to have limitations that impact enrollees' access to care.

This study found Medicaid expansion enabled many uninsured low-income patients to gain coverage that resided in states expanding the program. The depth of coverage offered by Medicaid allowed enrollees to access comprehensive primary care services. The coverage type also ensured enrollees were not at risk of generating high medical debt, as it either did not contain, or minimized, cost sharing. The expansion of the program strengthened FQHCs' ability to provide care, as it allowed them to serve more Medicaid insured patients and experience an increase in patient revenue. In turn, this allowed them to provide better care to Medicaid enrollees, as they could offer preventative and primary care without worrying how the care would be funded.

While the Medicaid program improved low-income enrollees' access to primary care, it also has its weaknesses. Not all primary care providers were willing or limitedly accepted Medicaid patients, reducing enrollee's choice of providers. As a result, FQHCs remained essential healthcare providers for



Medicaid patients under the ACA as they accepted all forms of coverage, albeit as capacity allows. In addition, Medicaid enrollees face difficulties accessing secondary care services, as a limited network of specialist providers are willing to accept their coverage type. This makes it difficult for FQHCs to effectively treat their patients, particularly those requiring treatment beyond that offered by primary care services.

Low-income uninsured patients served by FQHCs were less likely to gain coverage from private insurance under the ACA. FQHC uninsured patients that gained private insurance were found to face difficulties when accessing care as they select the most affordable insurance plans that included high cost sharing. These plans also have limited networks of specialist providers, thus making it difficult to find specialists willing to serve them. Private insurance improves FQHCs' ability to care for their patients less effectively, as they must subsidize care given to enrollees who cannot afford their out of pocket expenses. As a result, FQHCs have to use funds from other sources of revenue, particularly grants, which are reserved to cover the cost of care of uninsured patients, or to invest in capacity expansion. In addition, the limited network of specialist providers that were a part of the most affordable plans make it difficult for FQHCs' to refer patients.

The expansion of the publicly funded Medicaid program was perceived to be more effective in extending coverage, particularly to low-income patients served by FQHCs, than private insurance. They also acknowledge the important role of public funding in respect of expanding FQHCs' capacity. However, Medicaid expansion was compromised, as the federal government did not receive full support from all the state governments when implementing the expansion in 2014. This highlights one constraint when expanding coverage through public funding sources.

The findings of this study suggest extensive government regulations is essential in expanding coverage through publicly funded programs and private health insurance in a mixed insurance market. Private insurance in particular need extensive regulations as it contains characteristics (e.g., high cost sharing) that can limit low-income individuals' ability to obtain it and improve their

access to care. In addition, extensive government regulations are needed on healthcare providers in a mixed finance delivery of care system, as they may be reluctant to serve patients with certain coverage type. This causes patients with less attractive health insurance to have limited choice for a healthcare provider, thus limiting their access to care. This study's findings contribute to the ongoing debate on the ways in which public and private funding sources affect a health system's ability to expand coverage and move closer to achieving universal health coverage. It also shows the interaction that take place between a publicly funded program and private insurance in a mixed-insurance system.

### **7.3 Contribution to the literature**

This study's findings offer empirical insight into the effectiveness of the Affordable Care Act's attempt to expand coverage and improve access to care to low-income uninsured populations served by Federally Qualified Health Centers. To my knowledge this is the first study to investigate the experiences of FQHC administrators after the implementation of the Affordable Care Act in these three states.

This study contributed to this ongoing debate by presenting the experience of the United States' attempt to reform its current mixed-health insurance system by expanding both the publicly funded Medicaid program and private insurance. In doing so, this study provided insight into the effectiveness of expanding coverage, particularly among low-income population, through both methods. The findings demonstrated that low-income populations continue to be at risk of being uninsured under a mixed-funded health insurance system. The publicly funded Medicaid program provides limited coverage to segments of the low-income populations as not all states expanded the program. By contrast, low-income and near low-income segments of the population, who are ineligible for Medicaid, but receive subsidies to purchase private insurance from the marketplace were found to struggle with the affordability of plans.

FQHC administrators believed Medicaid was the most appropriate coverage type for the low-income population. It provides comprehensive primary care coverage and ensures enrollees face a low risk of generating high medical debt due to no or minimized share of cost. Private insurance from the marketplace was perceived to be an ineffective way of providing coverage to low-income patients, as it continued to be unaffordable due to high cost sharing. The most affordable plans purchased by low-income populations also faced limited network of providers willing accept it. The findings of this study suggest expanding publicly funded coverage such as Medicaid may be more effective in extending coverage than by private insurance. However, this study also found that barriers to accessing healthcare services continued to exist among patients with all coverage types. For example, new patients with Medicaid were able access primary care services from FQHC providers, but found it difficult to find non-FQHC providers willing to serve them (Chapter 5). Newly insured Medicaid and privately insured patients also found it difficult to access secondary care services given the limited network of providers willing to accept their coverage type. The findings of this study indicate that when expanding coverage in a mixed insurance system, healthcare providers' willingness (or unwillingness) to accept all forms of coverage type must be taken into account. Without addressing this, populations with certain insurance types may face barriers with accessing care.

Expanding Medicaid positively impacted FQHCs' ability to care for their patients, as it improved their finances (Chapter 4). FQHCs receive higher payment rates from Medicaid than from private insurance or self-payers. Therefore, it minimizes FQHCs' need to subsidize care to Medicaid patients, allowing them to use the revenue saved to expand capacity or serve more uninsured patients. By contrast, the low payment rates received from private insurance require FQHCs to subsidize the cost of patients' care, using funds reserved for other purposes. While federal grant funding continues to be an important source of revenue for FQHCs, patient revenue from Medicaid remain to be essential in their sustainability and growth.

Lastly, findings of this study contribute to the ongoing debates on implementation policy in a multi-governance system and the roles of different stakeholders throughout the process. Many stakeholders from the federal and state level affected the way the ACA was implemented. However, this study found that local level stakeholders were also important. The position of FQHC administrators near the end of the long policy implementation chain enabled them to respond and act on decisions made during the early stages of the process. As a result, they were able to help minimize negative impact of the ACA and to an extent enhance the positive impact of the policy on their organization and patients. The findings of this study found that the multi-governance system of the U.S had indeed contributed to the complexity of implementing the ACA. It provides a better understanding on why the country has yet to achieve near UHC and the struggle it faces to moving its fragmented health system towards it. Nevertheless, the findings also provide insights on how different levels of government bodies and stakeholders can incrementally work together to moving the American health system closer to UHC. The ACA may be one of many necessary steps in order for the U.S. to fully achieve this monumental task.

# Bibliography

- Abraham, J. (2014) How might the affordable care act's coverage expansion provisions influence demand for medical care? *The Milbank Quarterly*, 92(2), 63-87.
- Adashi, E., Geiger, J., and Fine, M. (2010) Health care reform and primary care- the growing importance of the community health center. *New England Journal of Medicine*, 362(22), 2047-2050.
- Anderson, L., Petticrew, M., Rehfuss, E., Armstrong, R., Ueffing, E., Baker, P., Francis, D., Tugwell, P. (2011). Using logic models to capture complexity in systematic review. *Research Synthesis Methods*, 2, 33-42.
- Advisory Board. (2017) *Where the states stand on Medicaid expansion*. Advisory Board.
- Amelung, V. (2013) Healthcare management: *Managed care organisations and instruments*. London, Springer.
- American College of Physicians (ACP). (2008) Achieving a high-performance health care system with universal access: What the United States can learn from other countries. *Annals of Internal Medicine*, 148, 55-75.
- Angier H., Hoopes, M., Gold, R., Bailey, S., Cottrell, E., Heintzman, J., Marino, M., DeVoe, J. (2015) An early look at rates of uninsured safety net clinic visits after the Affordable Care Act. *Annals of Family Medicine*, 13(1), 10-16.
- ASPE. (2016) *Impacts of the Affordable Care Act's Medicaid expansion on insurance coverage and access to care*. Department of Health and Human Services.
- Auerbach, D., Nowak, S., Ringel, J., Girosi, F., Eibner, C., McGlynn, E., Wasserman, J. (2011) *The impact of the coverage-related provisions of the patient protection and affordable care act on insurance coverage and state health care expenditures in Connecticut*. Rand Health.
- Auriacombe, C.J. (2011) Role of theories of change and programme logic models in policy evaluation. *African Journal of Public Affairs*, 4(2), 36-53.
- Austin, Z. and Sutton, J. (2014) Qualitative research: Getting started. *The Canadian Journal of Hospital Pharmacy*, 67(6), 436-440.

Bagley, N. and Horwitz, J. (2011) Why it's called the Affordable Care Act. *Michigan Law Review First Impressions*, 110, 1-9.

Baltussen, R., Norheim, O.F., Johri, M. (2011) Fairness in service choice: An important yet underdeveloped path to universal coverage. *Tropical Medicine and International Health*, 16(7), 838-839.

Banoob, S. (1994) Private and public financing- health care reform in eastern and central Europe. *World Health Forum*, 15, 329- 334.

Banthin, J. & Bernard, D. (2006) Changes in financial burden for health care: National estimates for the population younger than 65 years, 1996 to 2003. *JAMA*, 296, 2712-2719.

Barbour, R.S. (1999) 'The Case for Combining Qualitative and Quantitative Approaches in Health Services Research'. *Journal of Health Services Research Policy*, 4(1): 39-43.

Baxter, S., Blank, L., Woods, H., Payne, N. (2014) Using logic model; methods in systematic review synthesis: Describing complex pathways in referral management interventions. *BMC Medical Research Methodology*, 14(62), 1-9.

Beeson, T., Rosenbaum, S., Sharac, J., Shin, P., Paradise, J. (2012) Community health centers: *The challenge of growing to meet the need for primary care in medically underserved communities*. The Henry J. Kaiser Family Foundation.

Benbasat, I., Goldstein, D., Mead, M. (1987) The case research strategy in studies of information systems. *MIS Quarterly*, 11(3), 369-386.

Bevir, M. and Waring, J. (2018) *Decentering health policy: learning from British experiences in healthcare governance*. London, Routledge.

Birken, S., Lee, S., Weiner, B. (2012) Uncovering middle managers' role in healthcare innovation implementation. *Implementation Science*, 7(28), 1-12.

Birken, S., Lee, S., Weiner, B., Chin, M., Schefer, C. (2013) Improving the effectiveness of health care innovation implementation: Middle managers as change agents. *Medical Care Research and Review*, 70(1), 29-45.

Blahous, C. (2013) *The Affordable Care Act's optional Medicaid expansion: Considerations facing state governments*. Mercatus Center at George Mason University.

Blaikie, N. (2000) *Designing Social Research*. Cambridge, Polity Press.

Block, L., Cook, M., Hanyok, L., Torre, D., Rogers, M., Noronha, G., Sylvia, M. (2014) Coverage isn't enough: Building primary care capacity in the settling of health reform. *Journal of Health Care for the Poor and Underserved*, 25(1), 25-28.

Blumenthal, D. and Collins, S. (2014) Health care coverage under the affordable care act- a progress report. *The New England Journal of Medicine*, 371(3), 275-281.

Blumenthal, D., Abrams, M., Nuzum, R. (2015) The Affordable Care Act at 5 years. *The New England Journal of Medicine*, 372(25), 2451-2458.

Boeije, H. (2010) *Analysis in Qualitative Research*. London, Sage.

Boerma, T., Eozenou, P., Evans, D., Evans, T., Kieny, P., Wagstaff, A. (2014) Monitoring progress towards universal health coverage at country and global levels. *PLOS Medicine*, 11(9), 1- 8.

Borger, C., Smith, S., Truffer, C., Keehan, S., Sisko, A., Posal, J., Clemens, K. (2006) Health spending projections through 2015: Changes on the horizon. *Health Affairs*, 25(2), w61-w73.

Brandon, W., and Carnes, K. (2014) Federal health insurance reform and "exchanges": Recent history. *Journal of Health Care for the Poor and Underserved*, 25(1), xxxii-lvii.

Braveman, P., and Gruskin, S. (2003) Defining equity in health. *Journal of Epidemiological Community Health*, 57, 254-258.

Bredesen, P. (2010) *Fresh medicine: How to fix reform and build a sustainable health care system*. New York, Atlantic Monthly Press.

Bryman, A. (2012) *Social research methods, 4<sup>th</sup> edition*. Oxford, Oxford University Press.

Buettgens, M. and Hall, M. (2011) *Who will be the uninsured after health insurance reform?* Robert Wood Johnson Foundation.

Buettgens, M., Kenney, G., Recht, H., Lynch, V. (2013) *Eligibility for assistance and projected changes in coverage under the ACA: Variation across states*. Robert Wood Foundation and Urban Institute.

Bureau of Labor Statistics. (2017) Databases, tables, & calculators by subject. [Online] Available from: <https://www.bls.gov/data/> [Accessed 2 December 2017].

Bureau of Primary Health Care (BPHC) (2016) *Uniform data system reporting instructions- for use to submit calendar year 2016 UDS data*. Health Resources and Services Administration and Bureau of Primary Health Care.

Campbell, P. (1997) *Population projections States, 1995-2015*. U.S. Department of Commerce, Economics and Statistics Administration.

Carmichael, J. & Pomerleano, M. (2002) *The development and regulation of non-bank financial institutions*. Washington D.C., The World Bank.

Centers for Medicare & Medicaid Services (2017) Medicare Program- General Information. [Online] Available from: <https://www.cms.gov/Medicare/Medicare-General-Information/MedicareGenInfo/index.html> [Accessed 20 June 2017]

Cerna, L. (2013) *The nature of policy change and implementation: A review of different theoretical approaches*. Organisation for Economic Co-Operation and Development.

Chapman, A. (2016) Assessing the universal health coverage target in the sustainable development goals from a human rights perspective. *BMC International Health and Human Rights*, 16(33), 1-9.

Cheung, P., Wiler, J., Lowe, R., Gine, A., (2012) National study of barriers to timely primary care and emergency department utilization among Medicaid beneficiaries. *Annals of Emergency Medicine*, 60(1), 4-11.

Clemans-Cope, L., Kenney, G., Buettgen, M., Carrol, C., Blavin, F. (2012) The Affordable Care Act's coverage expansion will reduce differences in uninsurance rates by race and ethnicity. *Health Affairs*, 31(5), 920-930.

Collins, R., Rasmussen, P., and Doty, M. (2014) *Gaining ground: Americans' health insurance coverage and access to care after the Affordable Care Act's first open enrollment period*. The Commonwealth Fund. Report number: 1760(16).

Collins, S., Rasmussen, P., Doty, M., Beutel, S. (2015) *Americans' experiences with marketplace and Medicaid coverage*. The Commonwealth Fund, Report number: 1822(16).

Colombo, F. and Tapay, N. (2004) *Private health insurance in OECD countries: The benefits and costs for individuals and health systems*. OECD Health Working Papers. Report number: 15.

Colwill, JM., Cultice, JM., Kruse, RL. (2008) Will generalist physician supply meet demand of an increasing aging population? *Health Affairs*, 27(3), w232-w241.



CommUnity Care Health Centers. (2017) CommUnity Care Health Centers: About; Programs & Services. [Online] Available from: <http://communitycaretx.org/> [Accessed 10 August 2017].

Congressional Budget Office. (2013) *CBO's estimate of the net budgetary impact of the Affordable Care Acts health insurance coverage provisions has not changed much over time*. Congressional Budget Office. [Online] Available from: <http://www.cbo.gov/publication/44176> [Accessed 12 March 2014].

Cook, NL., Hicks, LS., O'Malley, AJ., Keegan, T., Guadagnoli, E., Landon, BE. (2007) Access to specialty care and medical services in community health centers. *Health Affairs*, 26(5), 1459-1468.

Crow, G., Wiles, R., Health, S., Charles, V. (2006) Research ethics and data quality: The implications of informed consent. *International Journal of Social Research Methodology*, 9(2), 83-95.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., Sheikh, A. (2011) The case study approach. *BMC Medical Research Methodology*, 11(100), 109.

Crowley, R. and Golden, W. (2014) Health policy basics: Medicaid expansion. *Annals of Internal Medicine*, 160, 423-425.

Culyer, A., and Wagstaff, A. (1993) Equity and equality in health and health care. *Journal of Health Economics*, 12, 431-457.

Cunningham, P. and Hadley, J. (2004) Expanding care versus expanding coverage: How to improve access to care. *Health Affairs*, 23(4), 234-244.

Cunningham, P. and Nichols, L. (2005) The effect of Medicaid reimbursement on the access to care of Medicaid enrollees: A community perspective. *Medical Care Research and Review*, 62(6), 676-696.

Cunningham, P., Bazolli, G., Katz, A. (2008) Caught in the competitive crossfire: Safety-net providers balance margin and mission in a private-driven health care market. *Health Affairs*, 27(5), w374-w382.

Curry, L., Krumholz, H., O'Cathain, A., Plano Clark, V., Cherlin, E., Bradley, E. (2013) Mixed methods in biomedical and health services research. *Circulation Cardiovascular Quality and Outcomes*, 6(1), 119-123.

Curry, L., Nembhard, I., Bradley, E. (2009) Qualitative and mixed methods provide unique contributions to outcome research. *Circulation*, 119, 1442-1452.

Cutler, D. (2010) *The simple economics of health reform*. The Economist's Voice.

Daniels, Z., VanLeit, B., Skipper, B., Sanders, M., Rhyne, R. (2007) Factors in recruiting and retaining health professionals for rural practice. *The Journal of Rural Health*, 23(1), 62-71.

Davis, K., Abrams, M., Stremikis, K. (2011) How the affordable care act will strengthen the nation's primary care foundation. *Journal of General Internal Medicine*, 26(10), 1201-1203.

Davis, K., Stremikis, K., Squires, D., Schoen, C. (2014) *Mirror, mirror on the wall: How the performance of the U.S. health care system compared internationally*. Commonwealth Funds.

Decker, S. (2012) In 2011 nearly one-third of physicians said they would not accept new Medicaid patient, but rising fees may help. *Health Affairs*, 31(8), 1673-1679.

DeNavas- Walt, C., Proctor B., Smith, J., U.S. Census Bureau (2006) *Income poverty, and health insurance coverage in the United States: 2006*. Current Population Reports.

Doonan, MT., & Tull, KR. (2010) Health care reform in Massachusetts: implementation of coverage expansions and a health insurance mandate. *Milbank Quarterly*, 88(1), 54-80.

Doonan, M. (2013) *American Federalism in practice: The formulation and implementation of contemporary health policy*. Washington D.C., Brookings Institution Press.

Doty, M., Abrams, M., Hernandez, S., Stremikis, K., Beal, A. (2010) *Enhancing the capacity of community health centers to achieve high performance: Findings from the 2009 Commonwealth fund national survey of federally qualified health centers*. The Commonwealth Fund. Report number: 1392.

Dubay, L. and Kenney, G. (2001) Health care access and use among low-income children: Who fares best? *Health Affairs*, 20(10), 112-121.

Duderstadt, K. (2013) Affordable care act: States move forward with health reform. *Journal of Pediatric Health Care*, 27(2), 158- 160.

Easton, G. (2010) Critical realism in case study research. *Industrial Marketing Management*, 39, 118-128.

El Rio Health. (2017) El Rio Health: About El Rio; For Patients. [Online] Available from: <http://www.elrio.org/> [Accessed 10 August 2017].

Embertson, M. (2006) The importance of middle managers in healthcare organization. *Journal of Healthcare Management*, 51(4), 223- 232.

Enthoven, A., & van, de Ven, W. (2007) Going Dutch- Managed-competition health insurance in the Netherlands. *New England Journal of Medicine*, 357(24), 2421-2423.

Evans, D., Marten, R., Etienne, C. (2012) Universal health coverage is a development issue. *The Lancet*, 380, 864-865.

Everest, T. (2014) resolving the qualitative-quantitative debate in healthcare research. *Medical Practice and Review*, 5(1), 6-15.

Fangmeier, J., Peters, C., Udow-Phillips, M. (2016) Effects of the Affordable Care Act on the health care safety net in Detroit. Altarum Institute and Center for Healthcare Research and Transformation.

Farrell, D., Jensen, E., Kocher, B., Lovgrove, N., Melhem, F., Mendonca, L., Parish, B. (2008) *Accounting for the Cost of US Health Care: A new look at why Americans spend more*. McKinsey & Company, McKinsey Global Institute.

Felland, L., Lechner, A., and Sommers, A. (2013) *Improving access to specialty care for Medicaid patients: policy issues and options*. The Commonwealth Fund. Report number: 1691.

Finegold, K. & Gunja, M. (2014) *Survey data on health insurance coverage for 2013 and 2014*. Department of Health and Human Services.

Fiscella, K. and Geiger, J. (2014) Caring for the poor in the 21<sup>st</sup> century: Enabling community health centers for a new era. *Journal of Health Care for the Poor and Underserved*, 25(4), 2044-2052.

Floyd, S. and Woolridge, B. (1992) Middle management involvement in strategy and its association with strategic type: A research note. *Strategic Management Journal*, 13, 153-167.

Foss, C. and Ellefsen, B. (2002) The value of combining qualitative and quantitative approaches in nursing research by means of method triangulation. *Journal of Advanced Nursing*, 40(2), 242–8.

Frank, R., and Lamiraud, K. (2009) Choice, price competition and complexity in markets for health insurance. *Journal of Economics Behavior & Organization*, 71, 550-562.

Franken, M. and Koolman, X. (2013) Health system goals: A discrete choice experiment to obtain societal valuations. *Health Policy*, 112, 28-34.

Fuchs, V. (1996) What every philosopher should know about health economics. *American Philosophical Society*, 140(2), 186-196.

Gable, L. (2011) The patient protection and affordable care act, public health, and the elusive target of human rights. *Journal of Law, Medicine & Ethics*, 340-354.

Gale N., Dowswell G., Greenfield S., Marshall T. (2017) Street-level diplomacy? Communicative and adaptive work at the front line of implementing public health policies in primary care. *Social Science and Medicine*, 177, 9-18

Garfield, R., Damico, A., Cox, C., Claxton, G., Levitt, L. (2015) *New estimates of eligibility for ACA coverage among the uninsured*. The Henry J. Kaiser Family Foundation.

Garrett, L., Chodhury, M., and Pablos-Mendez, A. (2009) All for universal health coverage. *The Lancet*, 374, 1294-1299.

Gerring, J. (2004) What is a case study and what is it good for? *American Political Science Review*, 98(2), 341-354.

Geyman, J. (2015) A five-year assessment of the Affordable Care Act: Market forces still trump the common good in U.S. healthcare. *International Journal of Health Services*, 45(2), 209-225.

Ghebreyesus, T. (2017) All roads lead to universal health coverage. *The Lancet*, 5(9), e839-e840.

Glasscock, RJ. (2010) Health care reforms in America: perspectives, comparisons and realities. *The Quarterly Journal of Medicine*, 103, 709-714.

Gofen, A. (2013) Mind the gap: Dimensions and influence of street-level divergence. *Journal of Public Administration Research Theory*, 24, 473-493.

Goldman, E. and Swayze, S. (2012) In-depth interviewing with healthcare corporate elites: Strategies for entry and engagement. *International Journal of Qualitative Methods*, 11(3), 230-243.

Gottschalk, M. (2011) They're back: The public plan, the reincarnation of Harry and Louise, and the limits of Obamacare. *Journal of Health Politics, Policy and Law*, 36(3), 393-400.

Greene, J., Carecelli, V., Graham, W. (1989) Toward a conceptual framework for mixed-method evaluation design. *Educational Evaluation and Policy Analysis*, 11(3), 255-274.

Gwatkin, D. & Ergo, A. (2011) Universal health coverage: Friend or foe of health equity? *The Lancet*, 377, 2160-2161.

Haeder, S. and Weimer, D (2015) You can't make me do it, but I could be persuaded: A federalism perspective on the affordable care act. *Journal of Health Politics, Policy, and Law*, 40(2), 281-323.

Hall, M. (2011) Rethinking safety-net access for the uninsured. *The New England Journal of Medicine*, 364(1), 7-9.

Hall, M. (2011b) The mission of safety net organizations following national insurance reform. *Journal of General Internal Medicine*, 26(7), 802-805.

Hamel, L., Doty, M., Norton, M., Ryan, J., Brodie, M., Abrams, M., Kleiman, R., Audet, A. Lorber, D. (2015) *Experiences and attitudes of primary care providers under the first year of ACA coverage expansion: Findings from the Kaiser Family Foundation/ Commonwealth Fund 2015 national survey of primary care providers*. The Henry J. Kaiser Family Foundation & The Commonwealth Fund. Issue number 1823 Volume 17.

Hall, T. and O'Toole, L. (2000) Structures for policy implementation: An analysis of National Legislation, 1965-1966 and 1993-1994. *Administration & Society*, 31(6), 667-686.

Hammer, D., Phillips, B., and Schmidt, T. (2010) The intended- and unintended- consequences of healthcare reform. *Journal of the Healthcare Financial Management Association*, 50- 55.

Hawkins, D. and Grove, D. (2011) The future role of community health centers in a changing health care landscape. *Journal of Ambulatory Care Management*, 34(1), 90-99.

Hayes, D. (2005) New effort to boost middle managers skills is under way. *Community Care*, 1559, 1-2.

Hayes, H., Parchman, M., Howard, R. (2011) A logic model framework for evaluation and planning in a primary care practice-based research network (PBRN). *Journal of the American Board of Family Medicine*, 24(5), 576-582.

Hayes, S., Collins, S., Radley, D., McCarthy, D., Beutel, S., Kiszla, J. (2015) *The changing landscape of health care coverage and access: Comparing states' progress in the ACA's first year*. The Commonwealth Fund, 1846(34).

He, A. (2017) Introducing voluntary private health insurance in a mixed medical economy: Are Hong Kong citizens willing to subscribe? *BMC Health Services Research*, 17(603), 1-10.

Heisler, E. (2016) *Federal health centers: An overview*. Congressional Research Service. Report number 7-5700.

Hennessey, J. (2013) FQHCs and health reform: Up to the task? *Northwestern University School of Law and Social Policy*, 9, 122-137.

Herring, R. & Satomero, A. (2000) *What is optimal financial regulation? The new financial architecture: Banking regulation in the twenty-first century*. Philadelphia, University of Pennsylvania, Wharton School.

Herriott, R.E. and Firestone, W.A. (1983) Multisite Qualitative Research: Optimizing Description and Generalizability. *Education Researcher*, 12, 14-19.

Herzlinger, R. & Parsa-Parsi, R. (2004) Consumer driven healthcare: Lessons from Switzerland. *JAMA*, 292(10), 1213- 1220.

Herzlinger, R., Richman, B., and Boxer, R. (2017) Achieving universal coverage without turning to a single payer lessons from 3 other countries. *JAMA*, 317(14), 1409- 1410.

Hindriks, J. (2002) Public versus private insurance with dual theory: A political economy argument. *The Geneva Papers on Risk and Insurance Theory*, 26, 225-241.

Hirsch, P. (1995) Tales from the field: Learning from researchers' accounts. In: Hertz, R., Imber, J.B. (eds). *Studying elites using qualitative methods*. Thousands Oaks, California, Sage Publication, 72-79.

Hoadley, J., Felland, L., and Staiti, A. (2004) Federal aid strengthens health care safety net: The strong get stronger. *Center for Studying Health System Change*, 80, 1-4.

Hofer, A., Abraham, J., Moscovice, I. (2011) Expansion of coverage under the patient protection and affordable care act and primary care utilization. *The Milbank Quarterly*, 89(1), 69-89.

Hoffman, C. and Paradise, J. (2008) Health insurance and access to health care in the United States. *Annals of the New York Academy of Sciences*, 1136, 149-160.

Homedes, N., and Ugalde, A. (2016) Globalization and health at the United States-Mexico border. *America Journal of Public Health*, 93(12), 2016-2022.

Hoopes, M., Angier, H., Gold, R., Bailey, S., Huguet, N., Marino, M., DeVoe, J. (2016) Utilization of community health centers in Medicaid expansion and non-expansion states, 2013-2014. *Journal of Ambulatory Care Management*, 39(4), 290-298.

HRSA. (2006) *Comparison of the rural health clinic and federally qualified health Center programs*. U.S Department of Health and Human Services, Health Resources and Services Administration (HRSA), Office of Rural Health Policy.

Hurley, J. (2001) Ethics, economic, and public financing of health care. *Journal of Medical Ethics*, 27, 234-239.

Hurley, R., Felland, L., Lauer, J. (2007) Community health centers tackle rising demands and expectations. *Center for Studying Health System Change*, 116, 1-4.

Huy, Q. (2001) In praise of middle managers. *Harvard Business Review*, 79(8), 72-79.

Jamison, D., Summers, L., Alleyne, G., Arrow, K., Berkley, S., Binagwaho, A., Bustreo, F., Evans, D., Feachem, R., Frenk, J., Ghosh, G., Goldie, S., Guo, Y., Gupta, S., Horton, R., Kruk, M., Mahmoud, A., Mohohlo, L., Ncube, M., Pablos-Mendez, A., Reddy, S., Saxenian, H., Soucat, A., Ullveit-Moe, K., Yamey, G. (2013) Global health 2035: A world converging within a generation. *Lancet*, 382, 1898-1955.

Janett, R.S., 2013. *Massachusetts' health reform : Approaching universal health coverage*. The World Bank, Report number: 75007.

Japsen, B. (2013) Doctor pay rises to \$221K for primary care, \$396K for specialist. *Forbes*. [Online] Available from: <https://www.forbes.com/sites/brucejapsen/2013/06/12/doctor-pay-rises-to-221k-for-primary-care-396k-for-specialists/#2bc3ad44f91b> [Accessed on 12 December 2017]

Ji, J. & Chen, L. (2016) UHC presents universal challenges. *Health Systems & Reform*, 2(1), 11-14.

Johnson, RB. And Onwuegbuzie, A. (2004) Mixed methods research: A research paradigm whose time has come. *American Educational Research Association*, 33(7), 14-26.

Jong, G. and Rutten, F. (1983) Justice and health for all. *Social Science & Medicine*, 17(16), 1085-1095.

Jordan, G. (2010) A theory-based logic model for innovation policy and evaluation. *Research Evaluation*, 19(4), 263-273.

Jost, T. (2014) Implementing health reform: four years later. *Health Affairs*, 33(1), 7-10.

Khan, A., and Khandaker, S. (2016) A critical insight into policy implementation and implementation performance. *Public Policy and Administration*, 15(4), 538-548.

Katz, A., Felland, L., Hill, I., Stark, L. (2011) A long and winding road: Federally qualified health centers, community variation and prospects under reform. *Center for Studying Health System Change*, 21, 1-9.

Katz, M. (2011) Safety-net providers and preparation for health reform. *Archives of Internal Medicine*, 171(15), 1319- 1320.

Keiser, L. (2010) Understanding street-level bureaucrats decision making: Determining eligibility in the social security disability program. *Public Administration Review*, 70, 247–257.

Keehan, S., Sisko, A., Truffer, C., Smith, S., Cowan, C., Poisal, J., Clemens, MK., National Expenditure Accounts Projections Team. (2008) Health spending projections through 2017: the baby-boom generation is coming to Medicare. *Health Affairs*, 27, w145–55.

Kelle, U. (2001) Sociological explanations between micro and macro and the integration of qualitative and quantitative methods. *Forum: Qualitative Social Research*, 2(1), 1-22.

Kilpatrick, A. and Holsclaw, P. (1996) Healthcare in the new millennium: Implications for executive and managers. *Public Administration Quarterly*, 20, 365-381.

Kneale, D., Thomas, J., and Harris, K. (2015) Developing and optimising the use of logic models in systematic reviews: Exploring practice and good practice in the use of programme theory in reviews. *PLoS One*, 10(11), 1-26.

Kominski, G., Nonzee, N., and Sorensen, A. (2017) The Affordable Care Act's impacts on access to insurance and health care for low-income populations. *Annual Review of Public Health*, 8, 489-505.

Kirch, D., Henderson, M., and Dill, M. (2012) Physician workforce projections in an era of health care reform. *The Annual Review of Medicine*, 63, 435-445.

Krane, D. (2007) The middle tier in American Federalism: State government policy activism during the Bush Presidency. *The Journal of Federalism*, 37(3), 453-477.

Krauss, S. (2005) Research paradigms and meaning making: A primer. *The Qualitative Report*, 10(4), 758-770.



Ku, L., Jones, E., Finnegan, B., Shin, P., Rosenbaum, S. (2009) How is the primary care safety net faring in Massachusetts? Community health centers in the midst of health reform, *The Henry J Kaiser Family Foundation*.

Ku, L., Jones, E., Shin, P., Byrne, F., Long, S. (2011) Safety-net providers after health care reform. *Archives of Internal Medicine*, 171(15), 1379-1384.

Ku, L., Richard, P., Dor, A., Tan, E., Shin, P. (2010) Strengthening primary care to bend cost curve: The expansion of community health centers through health reform. Geiger Gibson/RCHN Community Health Foundation Research Collaborative. Report number: 19.

Ku, L., Zur, J., Jones, E., Shin, P., Rosenbaum, S. (2014) *How Medicaid expansion and future community health center funding will shape capacity to meet the nation's primary care needs: A 2014 update*. Geiger Gibson/ RCHN Community Health Foundation Research Collaborative. Paper number 40.

Kumar, A., Chen, L., Choudhury, M., Ganju, S., Mahajan, V., Sinha, A., Sen, A. (2011) Financing health care for all: Challenges and opportunities. *The Lancet*, 377, 668-679.

Kutzin, J. (2001) A descriptive framework for country-level analysis of health care financing arrangements. *Health policy*, 56, 171-204.

Kutzin, J. (2012) Anything goes no the path to universal health coverage? No. *Bulletin of the World Health Organization*, 90, 867-868.

Kutzin, J. (2013) Health financing for universal coverage and health system performance: Concepts and implications for policy. *Bulletin of the World Health Organization*, 91, 602-611.

La Clinica. (2017) La Clinica: About; Services. [Online] Available from: <http://www.laclinica.org/> [Accessed 10 August 2017].

Lambrew, J. (2007) *The state children's health insurance program: Past, present, and future*. The commonwealth Fund/ Alliance for Health Reform.

Larkin, H. (2009) Mass Appeal?, *Trustee*, 21-24.

Lavarreda, S., Brown, E., Bolduc, C. (2011) Underinsurance in the United States: An interaction of costs, to consumers, benefit designs, and access to care. *Annual Review of Public Health*, 32, 471-482.

Lawton, E., Fagmeier, J., Udow-Phillips, M. (2016) *The effects of the Affordable Care Act on Federally Qualified Health Centers in Michigan*. Center for Healthcare Research & Transformation.

Lester, James., O'M Bowman, A., Goggin, M., O'Toole, L. (1995) Public Policy Implementation: Evolution of the Field and Agenda for Future Research. *Research in Public Policy Analysis and Management*, 7, 71-94.

Light, D. (2003) Universal health care: Lessons from the British experience. *International Perspective Forum*, 93(10), 25-30.

Lipsky, M. (1980) *Street level bureaucracy: Dilemmas of the individual in public service*. New York, NY, Russell Sage Foundation.

Lipsky, M. (2010) *Street-level bureaucracy, 30<sup>th</sup> Anniversary Edition: Dilemmas of the individual in public service*. New York, Russell Sage Foundation.

Litman, T., Robins, L. (1991) *Health politics and policy 2<sup>nd</sup> edition*. Albany, New York, Delmar Publishers, Inc.

Lo Sasso, A. & Byck, G. (2010) Funding growth drives community health center services. *Health Affairs*, 29(2), 289-296.

Long, S., Kenney, G., Zuckerman, S., Wissoker, D., Shartzter, A., Karpman, M., Anderson, N., Hempstead, K. (2014b) Taking stock at mid-Year: health insurance coverage under the ACA as of June 2014. Urban Institute Health Policy Center.

Long, S. and Stockley, K. (2010) Sustaining health reform in a recession: an update on Massachusetts as of Fall 2009. *Health Affairs*, 29, 1234-41.

Long, S. (2013) Physicians may need more than higher reimbursements to expand Medicaid participation: Findings from Washington State. *Health Affairs*, 32(9), 1560-1567.

Long, S., and Masi, P. (2009) Access and affordability: An Update on Health Reform in Massachusetts, Fall 2008. *Health Affairs*, 28(4), w578-w587.

Long, S., Coghlin, T., and King, J. (2005) How well does Medicaid work in improving access to care? *Health Services Research*, 40(1), 39-58.

Long, S., Karpman, M., Shartzter, A., Wissoker, D., Kenney, G., Zuckerman, S., Anderson, N., Hempstead, K. (2014c) *Taking stock: Health insurance coverage under the ACA as of September 2014*. Urban Institute Health Policy Center.

Long, S., Kenney, G., Zuckerman S., Wissoker, D., Goin, D., Hempstead, K., Karpman, M., Anderson, N. (2014a) Early estimates indicate rapid increase in health insurance coverage under the ACA: A promising start. Urban Institute Health Policy Center.

Long, S., Skopec, L., Shelto, A., Nordahl, K., Walsh, K. (2016) Massachusetts health reform at ten years: Great progress, but coverage gaps remain. *Health Affairs*, 35, 1633-1637.

Long, S., Stockley, K., and Dahlen, H. (2012) Massachusetts health reforms: Uninsurance remains low, self-reported health status improves as state prepares to tackle costs. *Health Affairs*, 31(2), 444-451.

Maarse, H. and Paulus, A. (2006) The politics of health-care reform in The Netherlands since 2006. *Health Economics, Policy and Law*, 6, 125-134.

Manatt Health Solutions, RSM McGladery, RCHN Community Health Foundation, Community Health Care Association of New York State. (2007) *Improving commercial reimbursement for community health centers: Case studies and recommendations for New York*. New York, Manatt Phelps and Phillips.

Manchikanti, L. (2008) Health care reform in the United States: Radical surgery needed now more than ever. *Pain Physician*, 11, 13-42.

Manchikanti, L. & Hirsch, J. (2009) Obama health care for all Americans: Practical implications. *Pain Physician*, 12, 289-304.

Manchikanti, L., Caraway, D., Parr, A., Fellows, B., Hirsch, J. (2011) Patient protection and Affordable Care Act of 2010: Reforming the health care reform for the new decade. *Pain Physician*, 14, E35-E67.

Manchikanti, L., Standiford, A., Benyamin, R., Hirsch, J. (2017) Evolution of US health care reform. *Pain Physician*, 20, 107-110.

Marin Community Clinics. (2017) Marin Community Clinics: About Us; Health Care Services. [Online] Available from: <http://www.marinclinic.org/> [Accessed 10 August 2017].

Massachusetts Department of Revenue (2009) *Individual mandate, 2008 preliminary data analysis*. Boston, MA Massachusetts Department of Revenue. [Online] Available from [http://www.mass.gov/Ador/docs/dor/News/PressReleases/2009/2008 Health Care Report.pdf](http://www.mass.gov/Ador/docs/dor/News/PressReleases/2009/2008%20Health%20Care%20Report.pdf) [Accessed 3 May 2014]

Matland, R. (1995) Synthesising the implementation literature: the ambiguity-conflict model of policy implementation. *Journal of Public Administration Research and Theory*, 5(2), 145-174.

Maxmanian, D., and Sabatier, P. (1983) *Implementation and Public Policy*. Dallas, TX, GlenView, III; Scott Foresman.

Maxwell, J., Cortes, D., Schneider, K., Graves, A., Rosman, B. (2011) Massachusetts' health care reform increased access to care for Hispanics, but disparities remain. *Health Affairs*, 30(8), 1451-1460.

McDonough, J. (2015) The United States health system in transition. *Health Systems & Reforms*, 1(1), 39-51.

McDonough, J., Rosman B., Phelps F., Shannon, M. (2006) The third wave of Massachusetts health care access reform. *Health Affairs*, 25, w420- w431.

McDonough, J., Rosman, B., Butt, M., Tucker, L., Howe, L. (2008) Massachusetts health reform implementation: Major progress and future challenges. *Health Affairs*, 27(4), w285-w297.

McLaughlin, M. (1987) Learning from experience: Lessons from policy implementation. *Educational Evaluation and Policy Analysis*, 9(2), 171-178.

MHC Healthcare. (2017) MHC Healthcare: About Us; Our Services. [Online] Available from: <https://mhchealthcare.org/> [Accessed 10 August 2017].

Miller, S. (2012) The effect of the Massachusetts reform on health care utilization. *Inquiry*. 49, 317-326.

Miller, W., Crabtree, B., Harrison, M., Fennel, M. (2013) Integrating mixed methods in health services and delivery system research. *Health Service Research*, 48(6), 2125-2133.

Milward, H. (1996) Symposium on the hollow state: Capacity, control, and performance in interorganizational settings. *Journal of Public Administration Research and Theory*, 6(2), 193-314.

Mingers, J. (2006) *Realising systems thinking: Knowledge and action in management science*. Canterbury, Springer.

Money, B. (2013) Federally qualified health center expansion through the affordable care act. *North Carolina Medical Journal*. 74(4), 325-326.

Mossialos, E., Wenzl, M., Osborn, R., Sarnack, D. (2016) 2015 *International profiles of health care systems*. The Commonwealth Fund. Report number 1857.

Mountain Park Health Center. (2017) Mountain Park Health Center: About Us; Our Services. [Online] Available from: <http://mountainparkhealth.org/> [Accessed 10 August 2017].

Mundinger, M. (1994) Advanced-practice nursing—Good medicine for physicians? *New England Journal of Medicine*, 330, 211-214.

Nardin, R., Sayah, A., Lokko, H., Woolhandler, S., McCormick, D. (2011) Reasons why patients remain uninsured after Massachusetts health care reform: A survey of patient at a safety-net hospital. *Society of General Internal Medicine*, 27(2), 250-256.

Nathan, R. (2005) Federalism and health policy. *Health Affairs*, 24(6), 1458- 1466.

National Collaborating Centre for Healthy Public Policy. (2013) *Constructing a logic model for a health public policy: Why and how?* Institut de Santé Publique Quebec.

National Rural Health Association. (1999) *Access to health care for the uninsured in rural frontier America*. National Rural Health Association.

Nguyen, K., and Sommers, B. (2016) Access and quality of care by insurance type for low-income adults before the Affordable Care Act. *American Journal of Pubic Health*, 106, 1409-1415.

Obama, B. (2009) 'Obama's health care speech to Congress,' transcript. The New York Times. [Online]. Available from: <http://www.nytimes.com/2009/09/10/us/politics/10obama.text.html> [Accessed 12, November, 2017].

Oberg, CN. & Polich, CL. (1988) Medicaid: Entering the third decade. *Health Affairs*, 7(4), 83-96.

OECD. (1992) *The reform of health care, a comparative analysis of six countries*. Organisation for Economic Co-operation and Development. Report number: 2.

Okie S. (2007) Immigrants and health care: at the intersection of two broken systems. *New England Journal of Medicine*, 357(6), 525-529.

Okma, K. & Crivelli, L. (2013) Swiss and Dutch "consumer-driven health care": Ideal model or reality? *Health Policy*, 109, 105-112.

Ole Health. (2017) Ole Health: Who we are; Our services. [Online] Available from: <http://www.olehealth.org/> [Accessed 10 August 2017].

Oliver, T. (2006) The politics of public health policy. *Annual Review of Public Health*. 27, 195-233.

O'Toole, L. J., Jr., & Montjoy, R. S. (1984) Interorganizational policy implementation: A theoretical perspective. *Public Administration Review*, 44(6), 491-503.

Owcharenko, N. (2013) *Why Medicaid expansion is still wrong for the states*. The Heritage Foundation. [Online] Available from: <http://www.heritage.org/health-care-reform/commentary/why-medicaid-expansion-still-wrong-the-states> [Accessed 20 June 2017].

Palinkas, L., Aarons, G., Horwitz, S., Chamberlain, P., Hulburt, M., Landsverk, J. (2011) Mixed method designs in implementation research. *Administration and Policy in Mental Health*, 39(10), 44-53.

Parand, A., Dopson, S., Renz, A., Vincent, C. (2014) The role of hospital managers in quality and patient safety: A systematic review. *BMJ Open*, 4, 1- 15.

Paudel, N. (2009) A critical account of policy implementation theories: Status and reconsideration. *Nepalese Journal of Public Policy and Governance*, 2, 36-54.

Patient Protection and Affordable Care Act (PPACA). (2010) *Public Law No: 111-148: H.R. 3590*. Washington D.C.

People's Community Clinic. (2017) People's Community Clinic: Our History; Our Programs. [Online] Available from: <https://www.austinpcc.org/> [Accessed 10 August 2017].

Petersen, D., Taylor, EF., Peikes, D. (2013) Logic models: *The foundation to implement, study, and refine patient-centered medical home models*. Agency for healthcare Research and Quality. Research number: 13-0029.

Petterson, S., Liaw, W., Phillips, R., Rabin, D., Meyers, D., Bazemore, A. (2012) Projecting US primary care physician workforce needs: 2010-2015. *Annals of Family Medicine*, 10(6), 503-509.

Petticrew, M., Eastmure, E., Mays, N., Knai, C., Durand, M., Nolte, E. (2013) The public health responsibility deal: How should such a complex public health policy be evaluated? *Journal of Public Health*, 1-7.

Polsky, D., Richards, M., Bassey, S., Wissoker, D., Kenney, G., Zuckerman, S., Rhodes, K. (2015) Appointment availability after increases in Medicaid payments for primary care. *The New England Journal of Medicine*, 372(6), 537-545.

Pope, C., Ziebland, S., and Mays, N. (2000) Qualitative research in health care analysing qualitative data. *British Medical Journal*, 320(7227), 114-116.

Pressman, J. and Wildavsky, I. (1973) *Implementation: How great expectations in Washington are dashed in Oakland*. Berkeley, CA University of California Press.

- Price, C. and Eibner, C. (2013) For states that opt of Medicaid expansion: 3.6 million fewer insured and \$8.4 billion less in federal payments. *Health Affairs*, 32(6), 1030-1036.
- Quadagno, J. (2005) *One nation, uninsured: Why the US has no national health insurance*. New York, Oxford University Press.
- Quadagno, J. (2014) Right-wing conspiracy? Socialist plot? The origins of the Patient Protection and Affordable Care Act. *Journal of Health politics, Policy, and Law*, 39(1), 35-56.
- Radley, D., McCarthy, D., Lippa, J., Hayes, S., Schoen, C. (2014) *Aiming higher: Results from a scorecard on state health system performance*. The Commonwealth Fund.
- Rasell, ME. (1995) Cost sharing in health insurance- a reexamination. *New England Journal Medicine*, 332, 1164-1168.
- Rashford, M. (2007) A universal healthcare system: Is it right for the United States? *Nursing Forum*, 42(1), 3-11.
- Reddock, J. (2017) Seeking consensus on universal health coverage indicators in the sustainable development goals. *Journal of Health Services Research & Policy*, 22(3), 178-182.
- Rice, T., Unruh, L., Rosenau, P., Barnes, A., Saltman, R., Ginneken, E. (2014) Challenges facing the United States of America in implementing universal coverage. *Bull World Health Organ*, 92, 894-902.
- Ridic, G., Gleason, S., and Ridic, O. (2012) Comparison of health care systems in the United States, Germany, and Canada. *Materia Socio Medica*, 24(2), 112-120.
- Ritchie, J. & Lewis, J. (2003) *Qualitative research practice- A guide for social science students and researchers*. London Sage.
- Robert, T. & Gaskin, D. (2015) Projecting primary care use in the Medicaid expansion population: evidence for providers and policy makers. *Medical Care Research and Review*, 72(5), 515-561.
- Robertson, CT., Egelhof, R., Hoke, M. (2008) Get sick, get out: the medical causes of home mortgage foreclosures. *Health Matrix: The Journal of Law-Medicine*, 18(1), 65-104.
- Robson, C. (2011) *Real world research*. Chichester John Wiley & Sons Ltd.



Rosenbaum, S. (2011) Law and the public's health. *Public Health Reports*, 126, 130-135.

Rosenbaum, S., Shin, P., Jones, E., Tolbert, J. (2010) *Community health centers: Opportunities and challenges of health reform*. The Henry J. Kaiser Family Foundation.

Rosenbaum, S., Paradise, J., Markus, A., Sharac, J., Tran, C., Reynolds, D., Shin, P. (2017) *Community health centers: Recent growth and the role of the ACA*. The Henry J. Kaiser Family Foundation.

Rosenblatt, R., Andrilla, A., Curtin, T., Hart, L. (2006) Shortages of medical personnel at community health centers: Implications for planned expansion. *JAMA*, 295(9), 1042-1049.

Rosenthal, G. and Newbrander, W. (1996) Public policy and private sector provision of health services. *International Journal of Health Planning Management*, 11, 203-216.

Rudowitz, R., Artiga, A., Musumeci, M. (2015) *The ACA and Medicaid expansion waivers*. The Henry J. Family Kaiser Foundation, The Kaiser Commission on Medicaid and the Uninsured.

Russell, L. (2013) *Federally qualified health centers: An overview*. Center for Healthcare Research & Transformation.

Ryan, J., Riley, P., Abrams, M., Nocon, R. (2015) How strong is the primary care safety net? Assessing the ability of federally qualified health centers to serve as patient-centered medical homes. *The Commonwealth Fund*.

Sabot, E. (1999) Dr. Jekyll, Mr. H(ide): The contrasting face of elites at interview. *Geoforum*, 30, 329-335.

Sachs, J. (2012), Achieving universal health coverage in low-income settings. *The Lancet*, 380, 944-947.

Saloner, B., Kenney, G., Polsky, D., Rhodes, K., Wissoker, D., Zuckerman, S. (2014) *The availability of new patient appointment for primary care at Federally Qualified Health Centers: Findings from an audit study*. Urban Institute and Health Policy Center.

Savageau, J., Ferguson, W., Bohlke, J., Cragin, L., O'Connell, E. (2011) Recruitment and retention of primary health care physicians at community health centers: A survey of Massachusetts physicians. *Journal of Health Care for the Poor and Underserved*, 22(3), 817-835.

Schieber, G., Baeza, C., Kress, D., Maier, M. (2006) Financing health systems in the 21<sup>st</sup> century. In: Jamison, D., Breman, J., Measham, A., Alleyne, G., Claeson,



M., Evans, D., Jha, P., Mills, A., Musgrove, P. (eds) *Disease control priorities in developing countries, 2<sup>nd</sup> edition*. New York Oxford University Press, 225-242.

Schlenker, T., and Huber, C. (2015) A unique funding opportunity for public health in Texas. *Journal of Public Health Management Practice*, 21(1), s81-s86.

Schmidt, H., Gostin, L., and Emanuel, E. (2015) Public health, universal health coverage and Sustainable Development Goals: Can they coexist? *The Lancet*, 1-3.

Schoen, C., Davis, K., DesRoches, C., Donelan, K., Blendon, R. (2000) Health insurance markets and income inequality: findings from an international health policy survey. *Health Policy*, 51, 67-85.

Schoen, C., Osborn, R., Squires, D., Doty, M., Pierson, R., Applebaum, S. (2010) How health insurance design affects access to care and costs by income, in eleven countries. *Health Affairs*, 29(12), 1-12.

Searing, A., and Hoadley, J. (2016) *Beyond the reduction in uncompensated care: Medicaid expansion is having a positive impact on safety net hospitals and clinics*. Georgetown University Health Policy Institute. Center for Children and Families.

Sekhri, N. & Savedoff, W. (2006) Regulating private health insurance to serve the public interest: Policy issues for developing countries. *International Journal of Health Planning Management*, 21, 357-392.

Shi, L. and Singh, D. (2017) *U.S. health care system, 4<sup>th</sup> edition*. Burlington, Massachusetts Jones & Bartlett Learning.

Shi, L., Lebrun, L., and Tsai, J. (2010) Assessing the impact of the health center growth initiative on health center patients. *Public Health Reports*, 125, 258-266.

Shin, P., Finnegan, B., Rosenbaum, S. (2008) *How does investment in community health centers affect the economy?* Geiger Gibson/ RCHN Community Health Foundation Research Collaborative. Report number: 1.

Shin, P., Rosenbaum, S., Bruen, B., Lu, A., Arguello, R., Tolbert, J. (2012a) Medicaid and community health centers: *The relationship between coverage for adults and primary care capacity in medically underserved community*. The Henry J. Kaiser Family Foundation and RHCN Community Health Foundation.

Shin, P., Rosenbaum, S., Paradise, J., RCHN Community Health Foundation. (2012b) Community health centers: The challenge of growing to meet the need

for primary care in medically underserved communities. The Henry J. Kaiser Family Foundation.

Shin, P., Sharac, J., Alvarez, C., Rosenbaum, S. (2013) *Community health centers in an era of health reform: An overview and key challenges to health center growth*. The Kaiser Commission on Medicaid and the Uninsured.

Shin, P., Sharac, J., Barberm Z, Rosenbaum, S., Paradise, J. (2015a) *Community health centers: A 2013 profile and prospects as ACA implementation proceeds*. The Henry J. Kaiser Family Foundation.

Shin, P., Sharac, J., Rosenbaum, S., Paradise, J. (2014) *Community health centers: A 2012 profile and spotlight n implications of state Medicaid expansion decisions*. The Henry J. Kaiser Family Foundation.

Shin, P., Sharac, J., Zur, J., Rosenbaum, S., Paradise, J. (2015b) *Health center patient trends, enrollment activities, and service capacity: Recent experience in Medicaid expansion and non-expansion states*. The Henry J. Kaiser Family Foundation, The Kaiser Commission on Medicaid and the Uninsured.

Siegel, B., Regenstein, M., Shin, P. (2004) Health reform and the safety net: Big opportunities: major risks. *Journal of Law Medicine & Ethics*, 32, 426-432.

Simpson, S. (2015) Creating a data analysis plan: What to consider when choosing statistics for a study. *The Canadian Journal of Hospital Pharmacy*, 68, 311-317.

Smith, G., Kennedy, C., Knipper, S., O'Brien, J., O'Keeffe, J. (2005) *Using Medicaid to support working age adults with serious mental illnesses in the community: A handbook*. Department of Health & Human Services.

Smuowitz, P., Landon, B., Burke, L., Baugh, C., Gunn, H., Lipton, R. (2009) Emergency department use by the uninsured after health care reform in Massachusetts. *Internal Emergency Medicine*, 4, 501-506.

Sommers, A., Paradise, J., Miller, C. (2011) Physician willingness and resources to serve more Medicaid patients: Perspective from primary care physicians, *Medicare & Medicaid Research Review*, 1(2), E1- E18.

Sommers, B., Baicker, K., and Epstein, A. (2012) Mortality and access to care among adults after state Medicaid expansion. *New England Journal of Medicine*, 367, 1025-1034.

Sommers, B., Gunja, M., Finegold, K., Musco, T. (2015) Changes in self-reported insurance coverage, access to care, and health under the Affordable Care Act. *JAMA*, 314(4), 366-374.

Sommers, B., Kronick, R., Finegold, K., Po, R., Schwartz, K., Glied, S. (2012) Understanding participation rates in Medicaid: Implications for the affordable care act. Department of Health & Human Services.

Stabile, M., Thomson, S., Allin, S., Boyle, S., Busse, R., Chevreul, K., Marchildon, G., Mossialos, E. (2013) Health care cost containment strategies used in four other high-income countries hold lessons for the United States. *Health Affairs*, 32(4), 643-652.

Staiti, A., Hurley, R., Katz, A. (2006) Stretching the safety net to serve undocumented immigrants: community responses to health needs. *Center for Studying Health System Change*, 104, 1-4.

Straus, A. and Corbin, J. (1990) *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA Sage.

Swenson, D. (2013) Measuring monetary values over time: Adjusting for inflation. [Online] Available from: <https://www.youtube.com/watch?v=XeL6nZUcWnk> [Accessed 15 December, 2017]

Tangcharoensathein, V., Mills, A., Palu, T. (2015) Accelerating health equity: The key role of universal health coverage in the sustainable development goals. *BMC Medicine*, 13(101), 1-5.

Tanner, M. (2011) *Bad medicine: A guide to the real costs and consequences of the new health care law*. CATO Institute.

Taylor, J. (2012) *Changes in latitudes, changes in attitudes: FQHCs and community clinics in a reformed health care market*. National Health Policy Forum. Report number: 84.

The Henry J. Kaiser Family Foundation (2013) *Medicaid eligibility for adults as of January 1, 2014*. The Henry J. Kaiser Family Foundation. Available from: <https://www.kff.org/medicaid/fact-sheet/medicaid-eligibility-for-adults-as-of-january-1-2014/> [Accessed on March 2017]

The Henry J. Kaiser Family Foundation. (2017) *Status of state action on the Medicaid expansion decision*. [Online] Available from: <http://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicare-under-the-affordable-care-act/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D> [Accessed 15 July 2017]

The U.S. Department of Veterans Affairs. (2018) History- VA History [Online] Available from: [https://www.va.gov/about\\_va/vahistory.asp](https://www.va.gov/about_va/vahistory.asp) [Accessed 3 November, 2018].

Thomson, C. (2009) Descriptive data analysis. *Air Medical Journal Associates*, 28(2), 56-59.

Thomson, S. and Mossialos, E. (2006) Choice of public or private health insurance: Learning from the experience of Germany and the Netherlands. *Journal of European Social Policy*, 16(4), 315-327.

Tiburcio Vasquez Health Center Inc. (2017) Tiburcio Vasquez Health Center Inc.: About Us; Programs & Services. [Online] Available from: <http://www.tvhc.org/Default.aspx> [Accessed 10 August 2017].

Tuohy, C., Flood, C., and Stabile, M. (2004) How does private finance affect public health care systems? Marshalling the evidence from OECD nations. *Journal of Health Politics, Policy, and Law*, 29(3), 359- 396.

United Nations (UN) General Assembly. (1949) Universal Declaration of Human Rights, 217 A (III). [Online] Available from: <http://www.un.org/en/documents/udhr/> [Accessed 23, April, 2014]

United Nations (UN). (1948) *Universal Declaration of Human Rights (1948) adopted by United Nations General Assembly Resolution 217A (III)*. United Nations.

Vaismoradi, M., Turunen, H., Bondas, T. (2013) Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15, 398-405.

van de Ven, W. and Schut, F. (2008) Universal mandatory health insurance in The Netherlands: A model for the United States? *Health Affairs*, 27(3), 771-781.

van Eyk, H., Baum, F., Blanford, J. (2001) Evaluating healthcare reform: The challenge of evaluating changing policy environments. *Evaluation*, 7(4), 487-503.

Voorhoeve, A., Edejer, T., Kipiriri, L., Norheim, O., Snowden, J., Basenya, O., Bayarsaikhan, D., Chentaf, I., Eyal, N., Folsom, A., Halima, R., Hussein, R., Morales, C., Ostmann, F., Ottersen, T., Prakongsai, P., Saenz, C., Saleh, K., Sommanustweechai, A., Wikler, D., Zakariah, A. (2016) Three case studies in making fair choices on the path to universal health coverage. *Health and Human Rights Journal*, 18(1), 11-22.

Wahyuni, D. (2012) The research design maze: Understanding paradigms, cases, methods and methodologies. *JAMAR*, 10(1), 69- 80.

Wallace, S., Young, M., Rodriguez, M., Bonilla, A., Pourat, N. (2016) *Community health centers play a critical role in caring for the remaining*

*uninsured in the Affordable Care Act era*. UCLA Center for Health Policy Research.

Weatherley, R. and Lipsky, M. (1977) Street-Level Bureaucrats and Institutional Innovation: Implementing Special Education Reform. *Harvard Educational Review*, 47(2), 171-197.

Webster, J. and Watson, R. (2002) Analyzing the past to prepare for the future: Writing a literature review. *MIS Quarterly*, 26(2), xvii-xxiii.

Wesley Community & Health Centers. (2017) Wesley Community & Health Centers: About Us; Programs. [Online] Available from: <https://www.wesleycenterphx.org/WesleyHealthCenter> [Accessed 10 August 2017].

White, F. (2015) Primary health care and public health: Foundations of universal health systems. *Medical Principles and Practice*, 24, 203-226.

White, J. (2012) The 2010 U.S. health care reform: Approaching and avoiding how other countries finance health care. *Health Economics, Policy and Law*, 1-27.

White, J. (2013) Cost control after the ACA. *Public Administration Review*, 73(51), S24-S33.

Whitehead, M. (1991) The concept and principles of equity and health. *Health Promotion International*, 6(3), 217-228.

Wilensky, S., & Rosenbaum, S. (2005) Medicaid reform: Implications for the health care safety net. *Virtual Mentor*, 7(7), 1-4.

Williams, A. (1988) Priority setting in public and private health care: A guide through the ideological jungle. *Journal of Health Economics*, 7, 173-183.

Wong, Y., Allotey, P., and Reidpath, D. (2016) Sustainable development goals, universal health coverage and equity in health systems: The Orang Asli commons approach. *Global Health Epidemiology and Genomics*, 1(12), 1-10.

World Health Organization (2010) *The world health report—health systems financing: the path to universal coverage*. World Health Organization.

World Health Organization & The World Bank. (2015) *Tracking universal health coverage: First global monitoring report*. World Health Organization, The World Bank.

World Health Organization Western Pacific Region. (2010) *Universal coverage for better health outcomes*. World Health Organization Western Pacific Region.

World Health Organization, (2007) *Everybody's business- strengthening health systems to improve health outcomes: WHO's framework for action*. World Health Organization.

World Health Organization. (2000) *The World health report 2000*. Health Systems: Improving Performance. World Health Organization.

World Health Organization. (2005) Sustainable health financing, universal coverage, and social health insurance: World Health Assembly Resolution 58.33 (2005). [Online] Available from: [http://www.who.int/health\\_financing/documents/cov-wharesolution5833/en/](http://www.who.int/health_financing/documents/cov-wharesolution5833/en/) [Accessed 10 September, 2017]

World Health Organization. (2013) *Research for universal health coverage*. World Health Organization.

World Health Organization. (2015) *Health in 2015 from MDGs Millennium Development Goals to SDGs Sustainable Development Goals*. World Health Organization.

Wright, B. and Ricketts, T. (2013) When patients govern: Federal grant funding and uncompensated care at Federally Qualified Health Centers. *Journal of Health Care for the Poor and Underserved*, 24(1), 954-967.

Wright, B., Damiano, P., and Bentler, S. (2014) Assessing the capacity of Iowa's community health centers to respond to the opportunities and challenges of the Affordable Care Act. *Journal of Health Care for the Poor and Underserved*, 25(4), 2032-2043.

Yin, R. (2003) *Case study: Research design and method*. Thousand Oaks Sage.

Yin, R. (2009) *Case study research design and methods, 4<sup>th</sup> edition*. Thousand Oaks Sage.

Young, J. (2013) *Arizona Medicaid expansion advances after Jan Brewer forces lawmaker's hands*. Politics. [Online] Available from: [http://www.huffingtonpost.com/2013/06/13/arizona-medicaid-expansion\\_n\\_3430371.html](http://www.huffingtonpost.com/2013/06/13/arizona-medicaid-expansion_n_3430371.html) [Accessed 20 June, 2017].

# Appendices

## **Appendix I:**

### **Background information of selected FQHCs in the AZ, CA, and TX**

This section provides further information on the background of each of the selected FQHCs in Arizona, California, and Texas. To maintain anonymity, an identifier was given to each site. The identifier is organized with the initial of the state (e.g. Arizona – AZ; California – CA; Texas - TX) followed by FQHC and a number.

#### ***Arizona FQHCs***

There were four selected FQHCs in Arizona, located in two urban counties: Maricopa and Pima County. **Maricopa County:** AZFQHC2 was established more than 30 years ago and provides care to an estimated 80,000 people (Mountain Park Health Center website, 2017). The health center provides care across the County in eight different locations (Mountain Park Health Center website, 2017). They provide various health care services, including family and internal medicine, pediatrics, dental care, health education, pharmacy, women’s health, and enabling services (Mountain Park Health Center website, 2017).

AZFQHC4 began as a community center in 1950 and provided programs to children, youths, and their families (Wesley Community & Health Center website, 2017). According to an administrator, the community center was designated as an FQHC in 2009 after receiving federal funds from the Recovery and Reinvestment Act (ARRA). AZFQHC4 is one of three FQHCs serving the greater region, but is much smaller than AZFQHC2 (Wesley Community & Health Center website, 2017). It has two centers located in different parts of the county and serves an estimated 8,000 patients (Wesley Community & Health Center website, 2017). The health center provides primary care, chronic disease management, lab/diagnostics, radiology, mental health services, preventative services, women’s health, urgent care, and enabling services (Wesley Community & Health Center website, 2017).



**Pima County:** AZFQHC1 was established in 1957 to provide healthcare services to migrant farm workers and local residents (MHC Healthcare website, 2017). Given high demand for health care from other low-income and underserved populations in the region, the health center expanded their reach, and now serves over 40,000 patients in 14 different centers of the county (MHC Healthcare website, 2017). The health center provides various health care services, including behavioral health, dental care, medical services, pediatrics, pharmacy, lab/radiology, social care, urgent care, and outreach (MHC Healthcare website, 2017).

The second FQHC selected in the county, identified as AZFQHC3, was established in 1970 as a collaboration between neighborhood activists and the local university to provide healthcare services to residents facing challenges when accessing care (El Rio Health website, 2017). Over the years, the center expanded to serve over 92,000 patients annually, across 13 sites located in various parts of the county (El Rio Health website, 2017). The health center provides various health care services such as adult medicine, behavioral health, dental care, health education, primary medical services, pharmacy, prevention, outreach, specialized care, and social care (El Rio Health website, 2017).

### ***California FQHCs***

There was four selected FQHCs in California located in three urban counties part of the San Francisco Bay Area: Alameda County, Marin County, and Napa County.

**Alameda County:** CAFQHC1 is one of the biggest health centers in the region and serves three counties (La Clinica website, 2017). It was established in 1971 to provide free medical, dental, and optometry care to low-income residents in Oakland, California (La Clinica website, 2017). Over the decades, the FQHC expanded to serve two additional counties bringing their total number of clinics to 40 and serving over 90,500 patients (CAFQHC1 website, 2017). The health center provides various health care services that include medical services, dental, optometry, mental health, pharmacy, health education, prevention, outreach, and enabling services (La Clinica website, 2017)

CAFQHC4 is also located in Alameda County. It was established in 1971 to provide services to migrant workers and other marginalized groups (Tiburcio Vasquez Health Center website, 2017). The health center has continually expanded over several decades by increasing the type of services offered to patients and by acquiring additional sites (Tiburcio Vasquez Health Center website, 2017). Currently, the FQHCs have 10 sites and serve over 14,000 people across the county (Tiburcio Vasquez Health Center website, 2017). The health center provides various health care services that include primary care, dental, optometry, mental health, women's health, pharmacy, health education, prevention, outreach, and enabling services (Tiburcio Vasquez Health Center website, 2017).

**Marin County:** CAFQHC3 was the only FQHC selected in Marin County and, according to the administrator, is its biggest. The health center began in a church basement by doctors and nurses volunteering their time to provide healthcare services to low-income and uninsured people (Marin Community Clinics website, 2017). Currently, they serve an estimated 35,000 patients and provide services in seven sites across the county. The health center provides various health care services that includes behavioral, dental, medical, laboratory, optometry, pediatrics, pharmacy, health maintenance and prevention, outreach, women's health (Marin Community Clinics website, 2017)

**Napa County:** CAFQHC2 was established in 1972 as a result of a community group addressing the lack of affordable health care services to low-income uninsured people and Spanish speakers in the region (Ole Health website, 2017). It became an FQHC in 2005 and has six sites across the county, serving over 35,000 patients (Ole Health website, 2017). It has recently opened an additional site in the neighboring county (Ole Health website, 2017). The health center provides various health care services that include adult health women's health, pediatric health, dental, behavior health, pharmacy, nutrition, and health education (Ole Health website, 2017).

### ***Texas FQHCs***

There were two selected FQHCs in Texas, located in one urban county: **Travis County**. TXFQHC1 was the biggest and had a longer history of being an FQHC. It was established in 1970 by collaboration between the city council and county commissioner court to provide healthcare services to low-income and uninsured residents (CommUnityCare Health Centers website, 2017). Over the years, the center grew and acquired 18 sites across the county, serving over 88,000 patients. (CommUnityCare Health Centers website, 2017). The health center provides various health care services that include behavioral health, dental care, primary care, pediatrics, pharmacy, preventative and health education, women's services, specialist care, and social services (CommUnityCare Health Centers website, 2017).

TXFQHC2 is a much smaller FQHC also established in 1970 by local doctors and nurses volunteering their time to provide care to the community in a church basement (People's Community Clinic website, 2017). It officially became an FQHC in 2012 that has 5 sites across the county and serves over 13,000 (People's Community Clinic website, 2017). The health center provides various primary health care services for adults (chronic disease management, health education, mental health), adolescents, pediatrics, prenatal and family planning, lab, pharmacy, preventative services, and specialist referrals (People's Community Clinic website, 2017).

**Appendix I, Table 1: Arizona FQHCs' background**

FQHC	History	Services	Geographical setting/ Facilities, population
<b>AZFQHC1</b>	<p>The health center was established in 1957 to serve migrant farm workers and local residents.</p> <p>The center expanded its reach to serve low-income and medically underserved populations in 1964 by introducing sliding fee scale.</p>	<ul style="list-style-type: none"> <li>• Counseling</li> <li>• Dental care</li> <li>• Enabling services (WIC Program, Transportation)</li> <li>• Family practice (Treating acute problems and managing chronic diseases)</li> <li>• Internal medicine (diagnose and treat chronic diseases)</li> <li>• Outreach</li> <li>• Pediatrics (evaluate and treat health conditions at all stages of childhood e.g., immunizations, asthma management, behavioral assessments)</li> <li>• Pharmacy</li> <li>• Quick care and urgent care</li> <li>• Specialty medicine (cardiology, gastroenterology, hematology/ oncology, nephrology, ophthalmology, orthopedics, pain management)</li> <li>• Women's health (OB/GYN)</li> </ul>	<p><b>Geographical setting:</b> Serves the Pima County. Network of 14 health centers located across the county.</p> <p><b>Population:</b> Serves over 40,000 patients</p>
<b>AZFQHC2</b>	<p>The health center has been serving the community for almost 30 years.</p>	<ul style="list-style-type: none"> <li>• Dental</li> <li>• Family Medicine/ Internal medicine (prevention treatment, chronic disease management, cancer screenings)</li> <li>• Health education classes</li> <li>• Pediatrics</li> <li>• Pharmacy</li> <li>• Women's health (health screenings, pregnancy care, well-women care, mammography)</li> <li>• Nutrition/ WIC</li> </ul>	<p><b>Geographical setting:</b> Serves Maricopa County. Network of 8 clinics located in various locations in the county. Including in school settings.</p> <p><b>Population:</b> Provide services to 80,000 patients.</p>

<b>AZFQHC3</b>	<p>The health center began by neighborhood activists, collaborating with a local university to provide care for residents unable to access healthcare. The health center was established in 1970.</p>	<ul style="list-style-type: none"> <li>• Adult medicine</li> <li>• Behavioral health</li> <li>• Enabling services (Transportation)</li> <li>• Family medicine</li> <li>• Dental</li> <li>• Health education (exercise and wellness)</li> <li>• Pharmacy</li> <li>• Pediatrics</li> <li>• Midwifery</li> <li>• OB/GYN</li> <li>• Physical therapy</li> <li>• Radiology and Lab</li> <li>• Transgender medicine</li> </ul>	<p><b>Geographical setting:</b> Serves Pima County. Network of 13 sites located in various locations in the county.</p> <p><b>Population:</b> Provide services to more than 92,000 patients annually.</p>
<b>AZFQHC4</b>	<p>The center began in 1950 as a result of a community program that served children, youth, and their families. The program eventually transformed into a clinic, becoming an FQHC in 2009 as a result of receiving funding from the Recovery and Reinvestment Act (ARRA).</p>	<ul style="list-style-type: none"> <li>• Care coordination</li> <li>• Chronic disease management (asthma, diabetes, heart, arthritis)</li> <li>• Counseling and mental health treatment</li> <li>• Family planning</li> <li>• Family practice</li> <li>• Health education</li> <li>• Immunizations</li> <li>• Prenatal program</li> <li>• Radiology and Lab</li> <li>• Routine wellness exams for women, men and children</li> <li>• Urgent care</li> <li>• Women's health (OB/GYN, breast cancer and cervical cancer screenings)</li> </ul>	<p><b>Graphical setting:</b> Serves Maricopa County. Network of 2 sites.</p> <p><b>Population:</b> Provide services to more than 8,000 patients annually.</p>

Source: (MHC Healthcare website, 2017; Mountain Park Health website, 2017; El Rio Community Health Center website, 2017; Wesley Health Center website, 2017)

**Appendix I, Table 2: California FQHCs' background**

<b>FQHC</b>	<b>History</b>	<b>Services</b>	<b>Geographical setting/ Facilities, population</b>
<b>CAFQHC1</b>	<p>The center opened in 1971 at a storefront that offered free medical, dental and optometry care.</p> <p>It expanded over the years, opening sites in three counties. The center focuses on providing services to a culturally and linguistically diverse population.</p>	<ul style="list-style-type: none"> <li>• Adolescent services (immunizations, physical exams, lab tests, sexual health)</li> <li>• Ancillary services (Pharmacy, Lab)</li> <li>• Behavioral health</li> <li>• Clinical health education (chronic disease management, sexual and reproductive health)</li> <li>• Dental Family medicine</li> <li>• Community health education</li> <li>• Pediatrics</li> <li>• Tattoo removal</li> <li>• Vision and eye care</li> <li>• Women's health</li> </ul>	<p><b>Geographical setting:</b> Serves 3 counties (Alameda, Contra-Costa, and Solano County). Network of 40 sites located across the 3 counties it serves.</p> <p><b>Population:</b> Serves over 90,500 patients.</p>
<b>CAFQHC2</b>	<p>In 1972, a local farm worker approached a community group to address the problem with the lack of health care services to low-income uninsured and Spanish speakers in the region. In that same a year, a small clinic was opened.</p> <p>In 2005, the center became an FQHC.</p>	<ul style="list-style-type: none"> <li>• Adult health (acute care, cancer screening, chronic care management, vaccinations/ immunizations)</li> <li>• Behavioral health</li> <li>• Dental health</li> <li>• Health education</li> <li>• Nutrition</li> <li>• Pediatric health</li> <li>• Pharmacy</li> <li>• Women's health (family planning, prenatal, primary care, perinatal services, reproductive health)</li> </ul>	<p><b>Geographical setting:</b> Serve Napa County and Solano County. Network of 6 health centers located across 2 counties.</p> <p><b>Population:</b> Serves over 35,000 patients.</p>

<b>CAFQHC3</b>	<p>The center began with volunteer doctors and nurses providing healthcare services to low-income and uninsured people in a church basement.</p> <p>It is currently the largest health center in the county and is part of the overall community's healthcare network.</p>	<ul style="list-style-type: none"> <li>• Behavioral health</li> <li>• Dental services</li> <li>• Health maintenance and prevention</li> <li>• Lab</li> <li>• Medical services (adult primary care, family practice, pediatric primary care, pregnancy services)</li> <li>• Optometry</li> <li>• Pharmacy</li> </ul>	<p><b>Geographical setting:</b> Serves Marin County. Network of 7 health centers located across the county.</p> <p><b>Population:</b> Serves over 35,000 patients</p>
<b>CAFQHC4</b>	<p>To address the health disparities impacting migrant communities, three local entities worked together to establish a clinic in the area.</p> <p>In 1971, the center opened and gained 3 modular trailers from the city to expand services. For the first 12 years, the center focused on providing care to migrant workers and other marginalized groups. In 1983, it expanded its services to provide services to the greater population that had challenges obtaining healthcare services.</p>	<ul style="list-style-type: none"> <li>• Behavioral and mental health</li> <li>• Community health education</li> <li>• Dental</li> <li>• Enabling services (WIC)</li> <li>• Family support services</li> <li>• Pharmacy</li> <li>• Primary care (general family medicine, reproductive health, prenatal care, immunizations, disease testing, health screenings)</li> <li>• Specialty referral services</li> <li>• Vision</li> <li>• Youth health services</li> </ul>	<p><b>Geographical setting:</b> Serves Alameda County. Network of 10 health centers located across the county.</p> <p><b>Population:</b> Served over 14,000 patients in 2011.</p>

Source: (La Clinica website, 2017; Ole Health website, 2017; Marin Community Clinics website, 2017; Tiburcio Vasquez Health Center website, 2017)

**Appendix I, Table 3: Texas FQHCs' background**

<b>FQHC</b>	<b>History</b>	<b>Services</b>	<b>Geographical setting/ Facilities, population</b>
<b>TXFQHC1</b>	<p>In 1970, and the city council collaborated with the county commissioner court to establish a clinic that provided healthcare services to low-income and uninsured residents.</p> <p>In 2001, the center became an FQHC.</p>	<ul style="list-style-type: none"> <li>• Behavioral health services</li> <li>• Dental health services</li> <li>• Healthcare for the homeless</li> <li>• Hepatitis C treatment</li> <li>• Lab</li> <li>• Mobile primary healthcare</li> <li>• Pediatric services</li> <li>• Pharmacy</li> <li>• Primary care services</li> <li>• Pulmonology</li> <li>• Specialty referrals</li> <li>• Walk-in services</li> <li>• Women's health</li> </ul>	<p><b>Geographical setting:</b> Serve Travis County. Network of 18 health centers located across the county.</p> <p><b>Population:</b> Serves over 88,000 patients</p>
<b>TXFQHC2</b>	<p>In 1970, the clinic was established by a group of volunteer doctors and nurses in a church basement to serve college students and part-time workers. The clinic's main goal was to provide free healthcare services.</p> <p>The clinic became an FQHC in 2012 and began to consider expanding their services.</p>	<ul style="list-style-type: none"> <li>• Adolescent health</li> <li>• Adult health (chronic disease management, health education, integrated behavior health, nutrition, gynecology)</li> <li>• Immunizations</li> <li>• Lab</li> <li>• Pediatric health</li> <li>• Pharmacy</li> <li>• Prenatal and family planning</li> </ul>	<p><b>Geographical setting:</b> Serves Travis County. Network of 5 health centers located across the county.</p> <p><b>Population:</b> Serves over 11,000 patients</p>

Source: (CommUnity Care website, 2017; People's Community Clinic website, 2017)



## Appendix II: Description of variables selected from UDS data

**Appendix II Table 4: Description of selected variables used collected from UDS data**

Description of each variables selected from UDS	
Operating FQHCs	UDS report the numerical value of the current operating FQHCs in the U.S. and all 50 states. This study extracted the total number of operating FQHCs in the U.S. (includes all the 50 states), Arizona, California, and Texas for the dates 2008 to 2015.
Patient coverage of 18 year olds and older	<p>UDS report the proportion of patients covered by specific coverage type. This study extracted data for patients identified as 18 an older (adult patients) with coverage from Medicaid (public insurance program), private insurance, and self-payer.</p> <p><i>Medicaid</i></p> <p>The proportion of adult patients with Medicaid was extracted from UDS for the U.S., Arizona, California, and Texas during the years of 2008 to 2015. This was collected to determine the changes in the proportion of patients served by FQHCs during the time period to determine the impact of the ACA's expansion of the Medicaid program.</p> <p><i>Private insurance</i></p> <p>The proportion of adult patients with private insurance was extracted from UDS for the U.S., Arizona, California and Texas during the years of 2008 to 2015. This was collected to determine the changes in the proportion of patients served by FQHCs during the ACA's expansion of coverage.</p> <p><i>Self-payer</i></p> <p>The proportion of adult patients who were identified as self-payer or uninsured was extracted from UDS for the U.S., Arizona, California, and Texas during the years 2008 to 2015. This was collected to determine the changes in the proportion of self-payers served by FQHCs under the ACA.</p>
Visits provided to patients	UDS report the amount of visits provided to patients by FQHCs. This study collected the number of visits provided to patients per year between 2008 and 2015 for the U.S., Arizona, California, and Texas. The provided visits included services from overall services (includes both clinical and non-clinical services), medical services, mental health services, and dental services. This was collected to determine the changes in the amount of services provided to patients between 2008 and 2015 in

	the U.S. and the three states.
Full time equivalent (FTE) of selected clinical employees	UDS report the hours worked by all its employees in terms of annualized full time equivalent (FTE). According to BPHC (2016) one full time equivalent (1.0) describes the staff working full time for one year. It is based on employment contract, and the amount of hours worked as a full time employee can vary among FQHCs (BPHC, 2016). This data collects the combined FTEs of general physicians (family physicians, general practitioners, internist), nurse practitioners, physician assistants, nurses, and medical personnel for FQHCs in the U.S., Arizona, California, and Texas between 2008 and 2015. The data is reported in UDS as one significant figure, but for simplicity this study rounded it up to the nearest whole value. This data was collected to determine the changes in the workforce capacity of this provider under the ACA.
Revenue sources	<p><i>Patient coverage revenue</i></p> <p>UDS report the revenue from different sources obtained by of FQHCs. This study collected data on revenue from patient coverage and grants. Data for patient revenue was collected in terms of the proportion of payment received from the Medicaid program, private insurance, and self-payers for FQHCs in the U.S., Arizona, California, and Texas every year between the years of 2008 to 2015. This was collected to determine the changes in the proportion of revenue received from specific coverage type under the ACA.</p> <p><i>Grant revenue</i></p> <p>UDS report the revenue from grants received by FQHCs. UDS separates the types of grants received by these providers under three categories: BPHC grants, Other federal grants, and Non-Federal grants or contracts (BPHC, 2016). All income received in a calendar year from these sources are reported as “Cash basis” (nominal values) (BPHC, 2016). Grants under BPHC include Health Center Program Section 330, Capital Improvement Program, and Capital Development (BPHC, 2016). Grants under the Other Federal grants include Ryan White Part C- HIV Early Intervention, other federal grants directly received from the U.S. Treasury, and Medicare and Medicaid EHR Incentive program (BPHC, 2016). Grants received under Non-Federal Grants or Contracts include state government grants and contracts, state/local indigent care programs, local government grants and contracts, and foundation/private grants and contracts (BPHC, 2016). This data was collected to determine the impact of the ACA on federal grants received by FQHCs, as the reform included the distribution of enhanced federal funding from 2011 to 2015.</p>

### **Appendix III:**

#### **Converting grant revenues from nominal values to real values**

Grant revenue received by FQHCs between 2008 and 2015 was reported as “cash basis” (nominal values) (BPHC, 2016). Therefore, these values were converted into real values. This was achieved with guidance from a Youtube clip made by Mr. Dave Swenson, Associate Scientist in Economics at the Iowa State University, Iowa Community Indicators Program. The website for this guidance is: <https://www.youtube.com/watch?v=XeL6nZUcWnk>

A frequency table was created that listed grant revenue received by FQHCs from the U.S., Arizona, California, and Texas every year between 2008 and 2015. The consumer price index (CPI) for medical care services in all urban consumers was then obtained from the Bureau of Statistics website: <https://www.bls.gov/for-the-years-2008-to-2015>. The consumer price index measures annual inflation. As the Bureau of Statistics collects several CPIs for different parts of the country (e.g., Midwest Urban, Northeast urban) the values selected corresponded to the regions of the FQHCs in this study.

The formula to calculate the rate of inflation takes the CPI base year (e.g., 2015) and divides by the CPI of the year that is being studied (e.g., 2008), and multiplies this by the nominal value of the year being studied (e.g., 2008). This was done for every year between 2008 and 2015 for grant revenue of Arizona, California, and Texas using a Microsoft Excel spreadsheet.

## Appendix IV:

### Consent form for interviewed participants



THE UNIVERSITY of EDINBURGH

#### Participants consent form

#### Investigating the impact of the Patient Protection & Affordable Care Act (ACA) on Federally Qualified Health Clinics

Primary Investigator: Angelo Ercia, MPH

**Please initial and sign the form below to confirm your agreement to the following statements:**

1. I confirm that I have read and understood the information sheet for the above project and I had the opportunity to ask questions and had them answered.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason or face any consequences.
3. I understand that data collected during the interview will be kept confidential.
4. I understand that my participation will be tape-recorded and the research team will have permission to access and analyze the information I provided from the interview.
5. I understand that anonymize quotes from my interview may be used in publications; however, it will not be possible to identify me from the information.
6. I understand that the result from this work may be published in an academic journal presented in an academic conference, or other public settings, however my identity will not be included.
7. I agree that my recorded interview and transcript of the interview will be stored in a password-protected computer and any printed transcript will be stored in a locked storage.
8. I agree to take part in the above study.

\_\_\_\_\_  
Name or initials of participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of person taking consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

## **Appendix V:**

### **Information sheet for interviewed participants**

<b>Participant Information Sheet</b>
--------------------------------------

#### **Investigating the impact of the Patient Protection & Affordable Care Act (ACA) on Federally Qualified Health Clinics (FQHCs)**

**Principal Investigator:** Angelo Ercia, MPH

**Organization:** University of Edinburgh

#### **Purpose of the Project**

It has been five years since the implementation of the ACA and many changes have occurred affecting FQHCs' ability to meet their mission of serving underserved communities. The project's goal is to conduct interviews with administrators to understand the impact of the ACA on FQHCs' ability to meet their mission of serving underserved communities with a focus on low-income nonelderly adults. Questions will focus on the overall impact of the ACA and the opportunities and challenges experienced under the reform.

#### **What the project ask of you**

You are being invited to participate in a 60-minute confidential interview because of your knowledge, expertise, and experience of the transition your clinic has undergone under the implementation of the ACA since 2010.

#### **Voluntary participation**

Your participation in this study is completely voluntary, and you may withdraw at any time.

#### **Confidentiality**

All information you provide will be strictly confidential. The information you provide at the recorded interviews (voice recording and transcription) will be stored securely in the researcher's computer. Only the researcher and the team will have access to the recordings and transcriptions of the interviews.

#### **Sharing the results**

The information you provide, and the resulting findings will be included in the researcher's PhD dissertation. It is possible the results from this study will be published in academic journals, presented at academic conferences, or other public settings. In all instances, data will be grouped and not show your individual response. You will not be identified by your name in any publication or presentation. You can request to receive a copy of the summary findings from this study when it is available by contacting the researcher.

#### **Ethics**

The ethical review board of The University of Edinburgh School of Social & Political Science (SPS) approved this project.

#### **Who to contact**

Angelo Ercia

Phone: 707-334 0135

Email: [aenercia06@gmail.com](mailto:aenercia06@gmail.com)

## Appendix VI: Interview Schedule



THE UNIVERSITY *of* EDINBURGH

### Investigating the impact of the Patient Protection & Affordable Care Act (ACA) on Federally Qualified Health Clinics

#### Interview Questions

Participant ID: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Date: \_\_\_\_\_

#### Introduction

My name is Angelo Ercia and I am the interviewer for you today.

Thank you for agreeing to participate with this interview. As mentioned from the participant information sheet, the purpose of the interview is to learn from your knowledge and experience of the impact that the ACA has made on your clinic's ability to meet its mission of serving underserved population. The aim of the interview is to learn from you the following:

- Overall impact of the ACA on your clinic for the last 5 years and other significant events that influenced your clinic's ability to serve underserved communities with a focus on low-income nonelderly adults.
- Challenges experience by your clinic to meeting your mission under the ACA.
- Opportunities gained by your clinic due to the implementation of the ACA that has helped meeting your mission.
- Strategies that your clinic has adapted to help meet your clinic's mission under the ACA.

As a participant of this interview, you will contribute to understanding the affects of the ACA on FQHCs ability to provide care to its target population. The interview will take an estimated 60 minutes and at any point you may end to stop the interview as you wish. I will also be recording the interview so I can capture all the information you share. All the information from this interview will be confidential and will be securely stored.

1. Can you please describe the mission of your clinic in one sentence?
2. What were the changes your clinic experience the last 5-10 years that have affected your ability to meet your mission?
  - Affected your ability to serve low-income nonelderly adults?
3. How did the Affordable Care Act (ACA) affect your clinic's ability to meet its mission of serving underserved population specifically the low-income non-elderly adults since 2010?

**(Supporting questions)**

Did you get the sense that the expansion of health insurance coverage affected your clinic's ability to meet your mission and serve low-income nonelderly adults?

Did you get the sense that the increase of funding to FQHCs from the federal government impacted your clinic's ability to meet your mission and serve low-income nonelderly adults?

4. Has your clinic experience any challenges meeting its mission and serving low-income nonelderly adult due to the implementation of the ACA since 2010?

**(Supporting questions)**

Has your clinic experience any challenges with serving low-income nonelderly adults as a result of the expansion of health insurance coverage?

Has your clinic experience any challenges with serving low-income nonelderly adults as a result of the increase in funding from the federal government?

Has your clinic experience any challenges serving uninsured, underinsured and undocumented adults under the ACA?

5. How did the challenges you identified affect your ability to meet the clinic's mission and continue serving low-income nonelderly adult?

**(Supporting question)**

How did the challenges you identified affect your clinic's ability to serve: Uninsured, Underinsured, and Undocumented migrants seeking care in your clinic?

6. What were the strategies your clinic implemented as a result of the challenges your clinic face under the ACA to continue meeting the mission and serve low-income nonelderly adults?

**(Supporting question)**

What were the strategies your clinic implemented as a result of challenges that affected your abilities to serve: Uninsured, Underinsured, and Undocumented migrant adults seeking care in your clinic?

7. Has your clinic experienced any opportunities under the ACA that has helped your clinic to meet its mission and continue serving low-income nonelderly adults since 2010?

**(Supporting questions)**

What were the opportunities your clinic gained to serve low-income nonelderly adults as a result of the expansion of health insurance coverage?

What were the opportunities your clinic gained to serve low-income nonelderly adults as a result of the increase of funding from the federal government?

What were the opportunities your clinic gained to serve uninsured, underinsured and undocumented patients

8. How did the opportunities your clinic gained affect your ability to continue serving low-income nonelderly adults?



**(Supporting question)**

How did the opportunities your clinic gained affect your ability to serve: Uninsured, Underinsured, and Undocumented migrants seeking care in your clinic?

9. What are the strategies your clinic implemented as a result of the opportunities your clinic gained to continue serving low-income nonelderly adults?

**(Supporting question)**

What were the strategies your clinic implemented as a result of challenges that affected your abilities to serve: Uninsured, Underinsured, and Undocumented migrant adults seeking care in your clinic?

10. Is there anything else you would like to add that we did not discuss as a result of the implementation of the ACA and its affect on your clinic's ability to continue serving low-income nonelderly adults?

**Closing/ Debrief**

Thank you for participating with this interview. If you have any questions in the future about the project, you are welcome to contact me. In addition, if you would like to receive a summary of findings of the interviews, you may also use the contact information to request a copy of it.

**Contact information**

Angelo Ercia

[S1323789@sms.ed.ac.uk](mailto:S1323789@sms.ed.ac.uk) or [aenercia06@gmail.com](mailto:aenercia06@gmail.com)

## **Appendix VII: Explanation of patient coverage change with Medicaid, private insurance, and uninsured under the ACA**

An analysis of the state-level UDS data from Arizona, California, and Texas, shows the proportion of patients aged 18 or older with Medicaid was fairly stable from 2008 to 2013 (see Figure 4.1). The three states experienced a noticeable increase in the proportion of Medicaid patients they served between 2013 and 2015. FQHCs in the states of Arizona and California particularly experienced a greater increase in the proportion of serving Medicaid patients than in Texas. An analysis of Arizonan UDS data shows Medicaid patients aged 18 and older accounted for 40.4 percent of the total health insurance source of patients in 2013 and this increased to 47.4 percent in 2015, a 7 percentage point increase. Californian UDS data shows Medicaid patients aged 18 and older accounted for 46 percent of the total health insurance source of patients in 2013 and this increased to 62.2 percent in 2015, a 16.2 percent point increase (see Figure 4.1). In comparison to Arizona and California, Texan UDS data shows a minimal increase in the proportion of Medicaid patients aged 18 and older served by FQHCs between the same periods. The proportion of Medicaid patients served by Texan FQHCs aged 18 and above accounted for 24.6 percent of the total health insurance source of patients in 2013, increasing to 28.5 percent in 2015 (see Figure 4.1).

The proportion of FQHC patients aged 18 and over that were covered by private insurance in the three states did not significantly increase. UDS data for Arizona, California, and Texas shows the proportion of patients with private insurance remained fairly stable from 2008 to 2013 with some minor yearly changes. Arizonan UDS data shows in 2013 the proportion of patients aged 18 and older with private insurance was 22.7 percent. This increased to 24.2 percent in 2015 (see Figure 4.2). Californian UDS data also shows FQHCs' minimal gains in newly privately insured patients; with the proportion of Californian FQHC patients aged 18 and older accounting for 6.1 percent in 2013 and 8.3 percent in 2015 (see Figure 4.2). Compared to the other two states,

FQHCs in Texas experienced a greater increase in patients with private insurance between 2013 and 2015, with Texan UDS data showing the proportion of FQHC patients aged 18 and older with private insurance accounting for 11.1 percent of insured patients in 2013, and 17.7 percent in 2015 (see Figure 4.2).

FQHCs in the three states were also found to have experienced a greater reduction in serving uninsured patients over 18 between 2013 and 2015. Arizonan UDS data shows the proportion of uninsured patients aged 18 and older served by FQHCs fell from 26.4 percent in 2013 to 17.5 percent in 2015 (see Figure 4.3). Californian UDS data shows the proportion of uninsured patients aged 18 and older reduced from 38.5 percent in 2013 to 24.4 percent in 2015, while in Texas it fell from 50.9 percent in 2013 to 41.9 percent in 2015 (see Figure 4.3).

## Appendix VIII: List of services included in the overall services provided by FQHCs

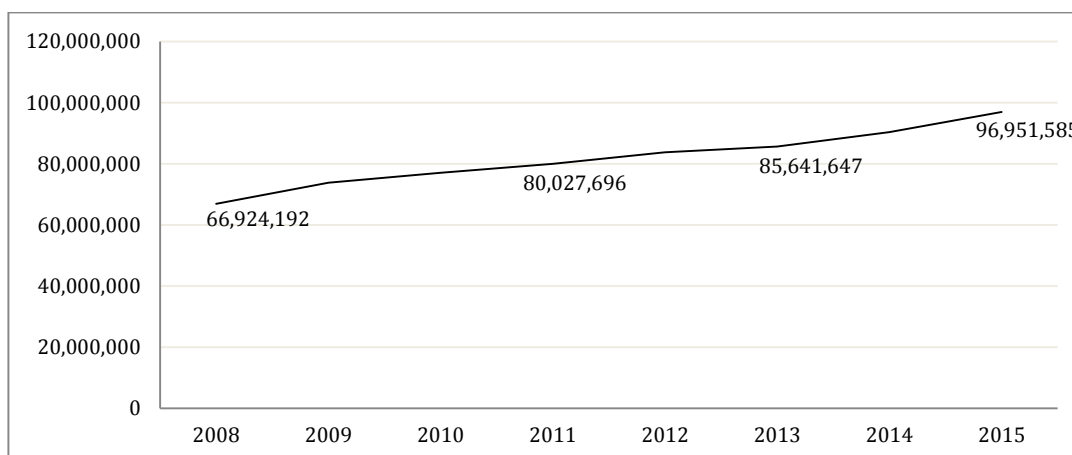
**Appendix VIII Table 5: Services included in the number of overall services  
provided to patients**

FQHC services
<ul style="list-style-type: none"> <li>• Medical services</li> <li>• Dental services</li> <li>• Mental health services</li> <li>• Substance abuse services</li> <li>• Other professional services (includes services from occupational, speech, physical therapist, registered dietitians, nutritionists, podiatrists, naturopaths, chiropractors, acupuncturists, and community health aides/ practitioners)</li> <li>• Vision services</li> <li>• Pharmacy</li> <li>• Enabling services (include services from case managers, patient and community education specialists, outreach workers, transportation workers, eligibility assistance workers (health insurance assistants), interpreters, community health workers, personnel performing other enabling service activities)</li> <li>• Other programs and related services (include services from quality improvement staff)</li> <li>• Facility and non-clinical support services (include services from non-clinical support services e.g., management and support staff, IT staff, fiscal and billing staff)</li> </ul>

Source: Bureau of Primary Health Care, 2016

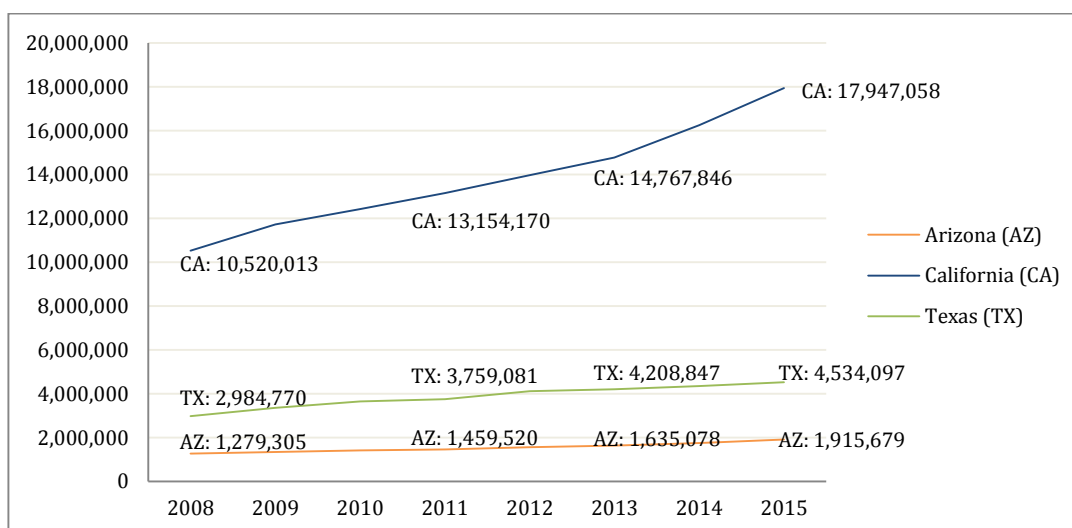
## Appendix IX: Number of total overall services provided by FQHCs in the U.S., AZ, CA, and TX between 2008 and 2015

**Appendix IX, Figure 1: Number of total overall services provided by FQHCs in the U.S., 2008-2015**



Source: UDS data, 2008- 2015

**Appendix IX, Figure 2: Number of total overall services provided by FQHCs in AZ, CA, and TX, 2008-2015**

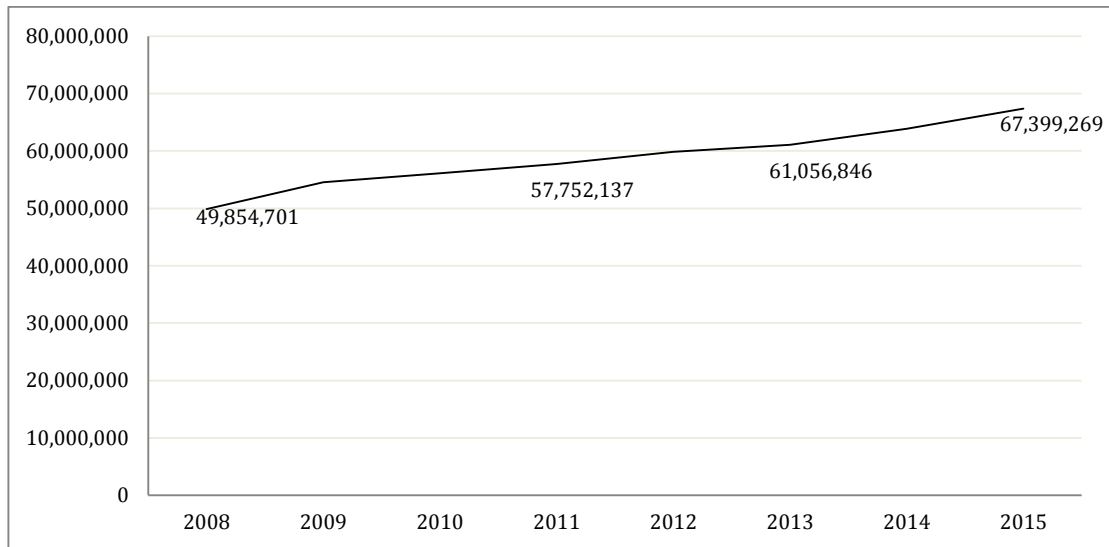


Source: UDS data, 2008- 2015

The total number of provided “overall services” in the U.S. increased by 30,027,393 between 2008 and 2015 (see Appendix IX, Figure 1). The total number of provided “overall services” in Arizona increased by 636,374 between 2008 and 2015; in California they increased by 7,427,045 between 2008 and 2015 and by 1,549,327 in Texas over the same time period (see Appendix IX, Figure 2).

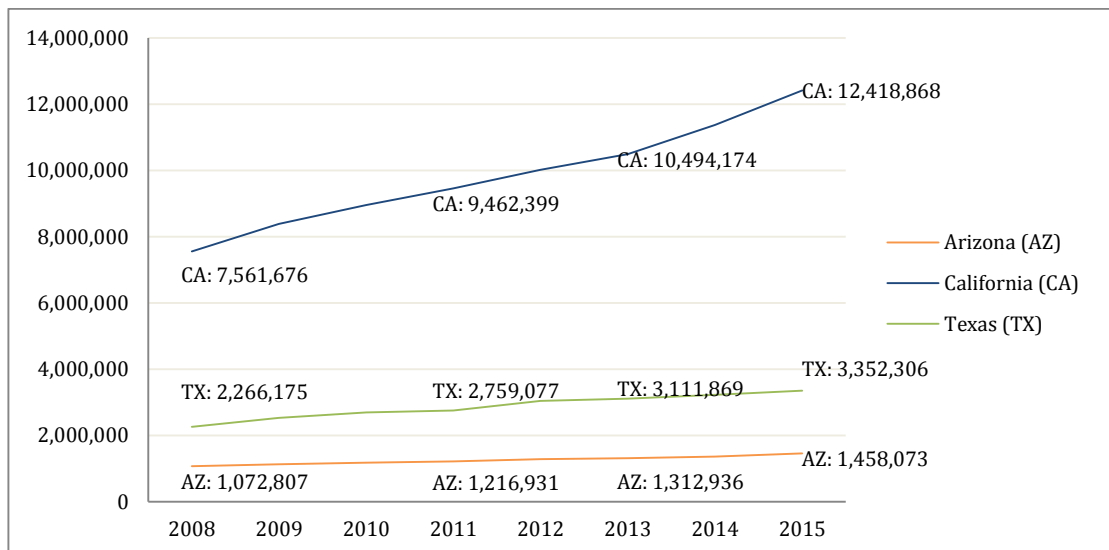
## Appendix X: Number of total medical, mental health, and dental services provided by FQHCs in the U.S., AZ, CA, and TX between 2008 and 2015

**Appendix X, Figure 3: Number of total medical services provided by FQHCs in the U.S., 2008-2015**



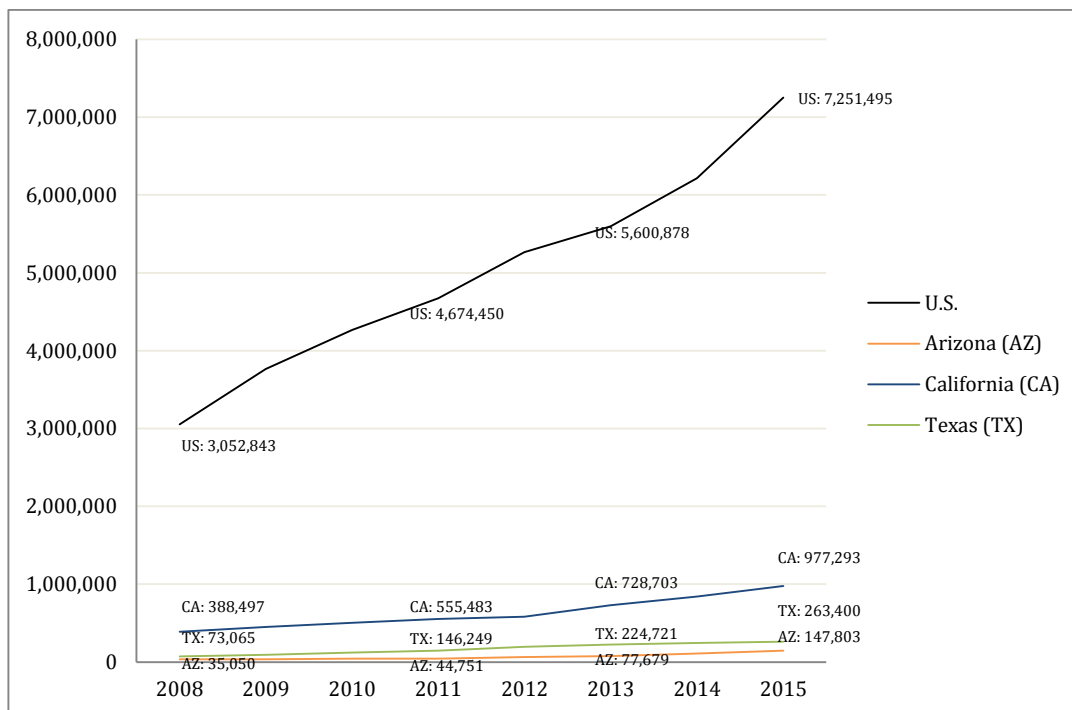
Source: UDS data, 2008- 2015

**Appendix X, Figure 4: Number of total medical services provided by FQHCs in AZ, CA, and TX, 2008-2015**



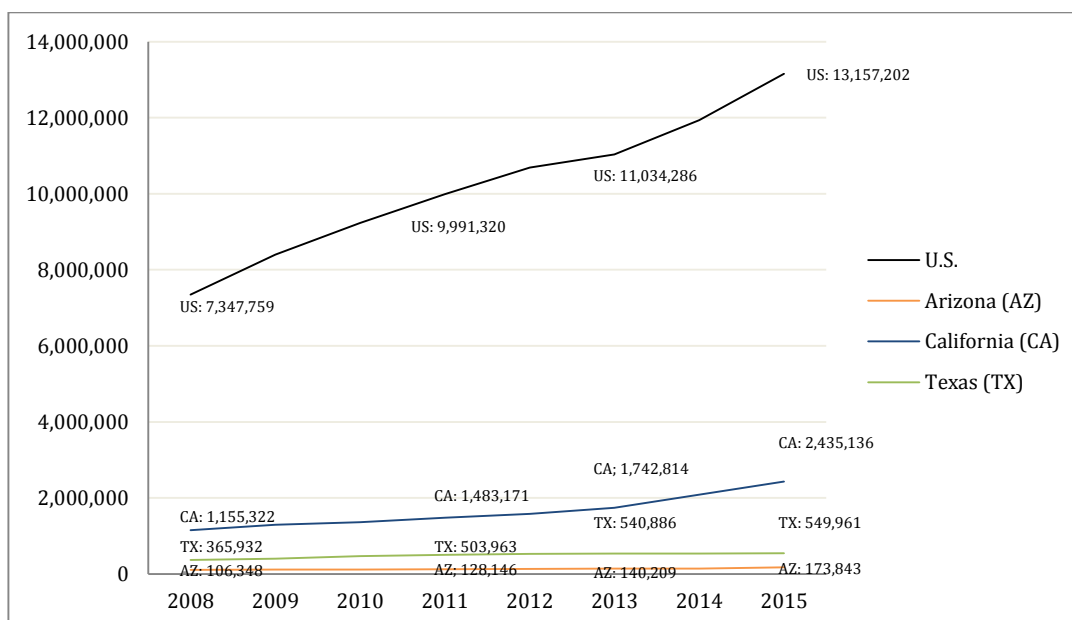
Source: UDS data, 2008- 2015

**Appendix X, Figure 5: Number of total mental health services provided by FQHCs in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008- 2015

**Appendix X, Figure 6: Number of total dental services provided by FQHCs in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008- 2015

Medical care visits include services provided by physicians, other clinicians (nurse practitioners, physician assistants, certified nurse midwives, nurses,

other medical personnel), and laboratory/x-ray personnel (BPHC, 2016). An analysis of UDS data from Arizona, California, and Texas shows FQHCs experienced an annual increase in the total number of provided medical visits between 2008 and 2015 (see Appendix X, Figure 4). UDS data shows in 2008, Arizonan FQHCs provided a total of 1,072,807 medical visits. This increased to 1,458,073 in 2015. UDS data from California and Texas showed the same trend with Californian UDS data showing FQHCs provided a total of 7,561,676 medical visits in 2008, which increased to 12,418,868 in 2015. Texan UDS data showed FQHCs provided a total of 2,266,175 medical visits in 2008, which increased to 3,352,306 in 2015.

Arizonan and Californian UDS data shows FQHCs experienced a greater increase in medical visits between 2013 and 2015. Arizonan UDS data shows the total number of medical visits to FQHCs between 2011 and 2013, increased by 96,005, whereas the total number of provided medical visits between 2013 and 2015 increased by 145,137. Californian UDS data showed a similar trend. Between 2011 and 2013, Californian FQHCs experienced an increase in the total number of provided medical visits by 1,031,775. The total number of provided medical visits between 2013 and 2015 increased by 1,924,694. By comparison, UDS data from Texas shows FQHCs in Texas experienced a greater increase in medical visits between 2011 and 2013 with an increase of 352,792 between those years and only 240,437 between 2013 and 2015.

Mental health visits include services provided by psychiatrists, licensed clinical psychologists, licensed clinical social workers, other licensed mental health providers, and other mental health staff members (BPHC 2016). Like medical care visits, the number of provided mental health visits to FQHCs in Arizona and California increased more during the period of 2013 to 2015 than between 2011 and 2013 (see Appendix X, Figure 5). Arizonan UDS data shows the total number of provided mental health visits between 2011 and 2013 increased by 32,928, while it increased by 70,124 between 2013 and 2015. Californian UDS data shows the total number of provided mental health visits between 2011 and 2013 increased by 173,220; the total number of provided mental health visits between 2013 and 2015 significantly increased by

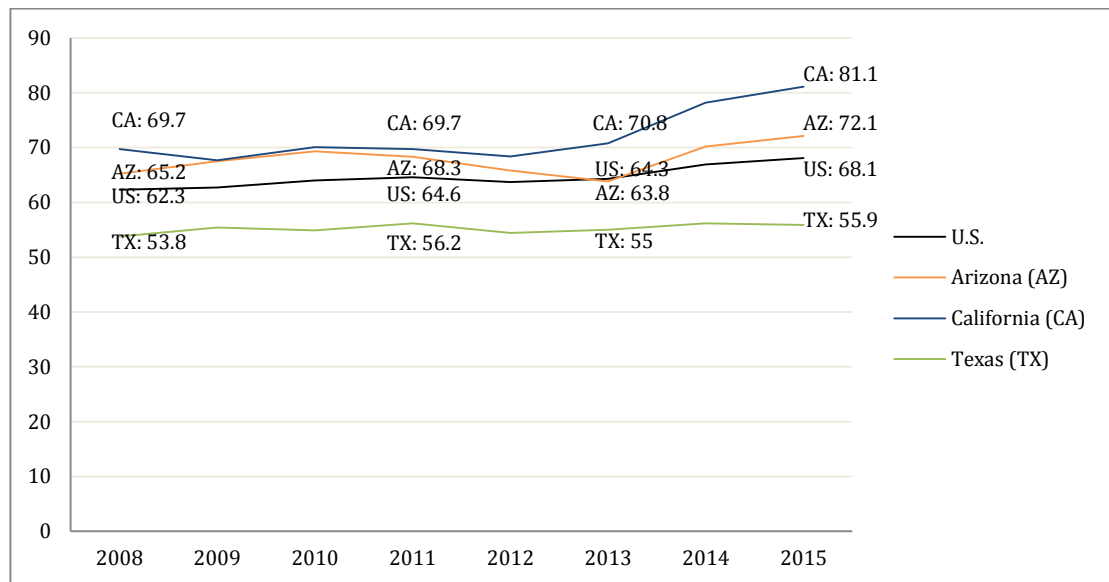


904,420. Conversely, and as with medical care visits, Texan UDS data showed FQHCs experienced a greater increase in the number of total provided mental health visits between 2011 and 2013 than between 2013 and 2015. The total number of mental health visits increased by 78,472 between 2011 and 2013, and only by 38,679 between 2013 and 2015 (see Appendix X, Figure 5).

Dental care visits include services provided by dentists, dental hygienists, dental therapists, and other dental personnel (BPHC, 2016). Arizonan and Californian UDS data shows FQHCs provided more dental care visits between 2013 and 2015 than between 2011 and 2013 (see Appendix X, Figure 6). Arizonan UDS data shows FQHCs experienced an increase in the total number of provided dental care visits by 12,063 between 2011 and 2013 and by 33,634 between 2013 and 2015. Californian UDS data shows FQHCs experienced an increase in the total number of provided dental care visits by 259,643 between 2011 and 2013 and by 692,322 between 2013 and 2015. By contrast, Texan UDS data shows FQHCs provided more dental care visits between 2011 and 2013 than between 2013 and 2015 (see Appendix X, Figure 6). UDS data shows dental care visits to FQHCs increased by 36,923 between 2011 and 2013, but only 9,075 between 2013 and 2015.

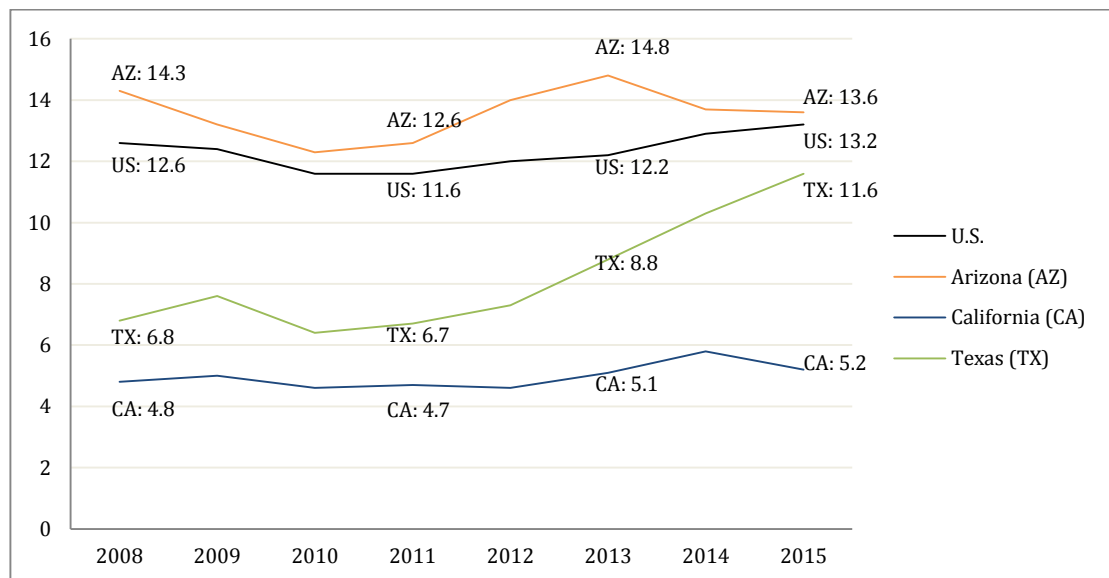
## Appendix XI: FQHC revenue collected from patient coverage

**Appendix XI, Figure 7: Proportion of FQHC revenue from Medicaid in the U.S., AZ, CA, and TX, 2008-2015**



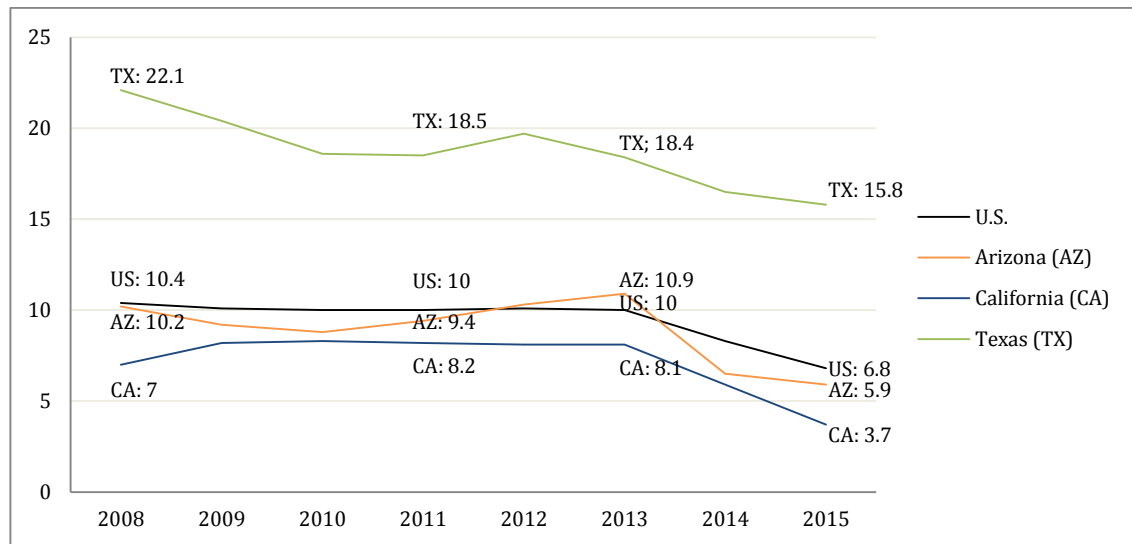
Source: UDS data, 2008- 2015

**Appendix XI, Figure 8: Proportion of FQHC revenue from private insurance in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008- 2015

**Appendix XI, Figure 9: Proportion of FQHC revenue from self-payers in the U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008- 2015

Arizonan UDS data shows between 2011 and 2013, the proportion of revenue from Medicaid decreased by 4.5 percent, and between 2013 and 2015, it increased by 8.5 percent (see Appendix XI, Figure 7). UDS data from California also shows the proportion of revenue from Medicaid increased significantly between 2013 and 2015, with Medicaid revenue between 2011 and 2013 increasing by 1.1 percent and by 10.3 percent between 2013 and 2015 (see Appendix XI, Figure 7). Texan UDS data show the proportion of revenue from Medicaid increased by 1.2 percent between 2011 and 2013, and only by 0.9 percent between 2013 and 2015 (see Appendix XI, Figure 7).

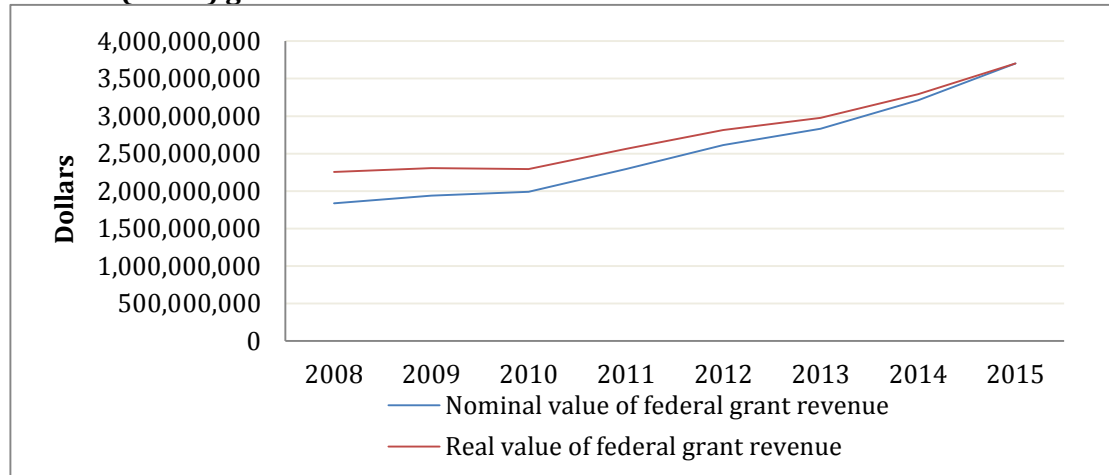
UDS data shows the collected proportion of revenue from private insurance did not significantly increase, particularly in Arizona and California (see Appendix XI, Figure 8). While Arizonan UDS data shows the proportion of revenue from private insurance increased by 2.2 percent between 2011 and 2013, it declined by 1.2 percent between 2013 and 2015. UDS data from California shows the proportion of revenue from private insurance increased by 0.4 percent between 2011 and 2013 and by 0.1 percent between 2013 and 2015. By contrast, UDS data shows FQHCs in Texas experienced a slightly higher increase in the proportion of revenue received from private insurance (see Appendix XI, Figure 8). Texan UDS data shows the proportion of revenue

from private insurance increased by 2.1 percent between 2011 and 2013 and by 2.8 percent between 2013 and 2015.

UDS data from Arizona shows the proportion of revenue from self-payers declined by 5 percent between 2013 and 2015 (see Appendix XI, Figure 9). UDS data from California shows the proportion of revenue from self-payers declined by 4.4 percent between 2013 and 2015, while Texan UDS data show it declined by 2.6 percent (see Appendix XI, Figure 9).

## Appendix XII: FQHC revenue collected from Federal (BPHC) grants in the U.S., AZ, CA, and TX between 2008 and 2015

**Appendix XII, Figure 10: FQHC revenue (nominal and real value) received from Federal (BPHC) grant in the U.S. between 2008 and 2015**



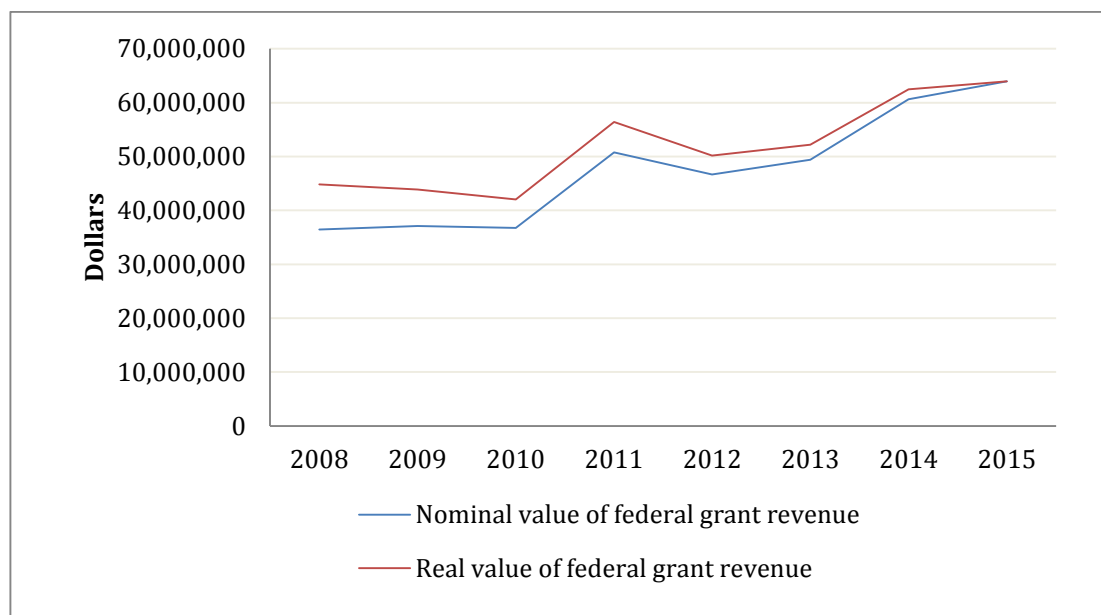
Source: UDS data, 2008-2015

**Appendix XII, Table 6: FQHC income (nominal and real value) received from Federal (BPHC) grant in the U.S. between 2008 and 2015**

	Nominal value of federal grant revenue	Real value of federal grant revenue	Consumer Price Index
2008	1,838,725,354	2,256,339,471	364.065
2009	1,940,175,687	2,307,634,104	375.613
2010	1,993,027,143	2,292,240,838	388.436
2011	2,295,364,083	2,561,993,751	400.258
2012	2,614,122,277	2,814,646,430	414.924
2013	2,832,141,040	2,976,154,986	425.134
2014	3,209,598,399	3,294,097,994	435.292
2015	3,701,019,751	3,701,019,751	446.752
Percentage change 2008-2015	101%	64%	23%
Percentage change from 2011-2015	61%	44%	12%

Source: UDS data 2008-2015; Bureau of Labor of Statistics CPI 2008- 2015

**Appendix XII, Figure 11: FQHC income (nominal and real value) received from Federal (BPHC) grant in Arizona between 2008 and 2015**



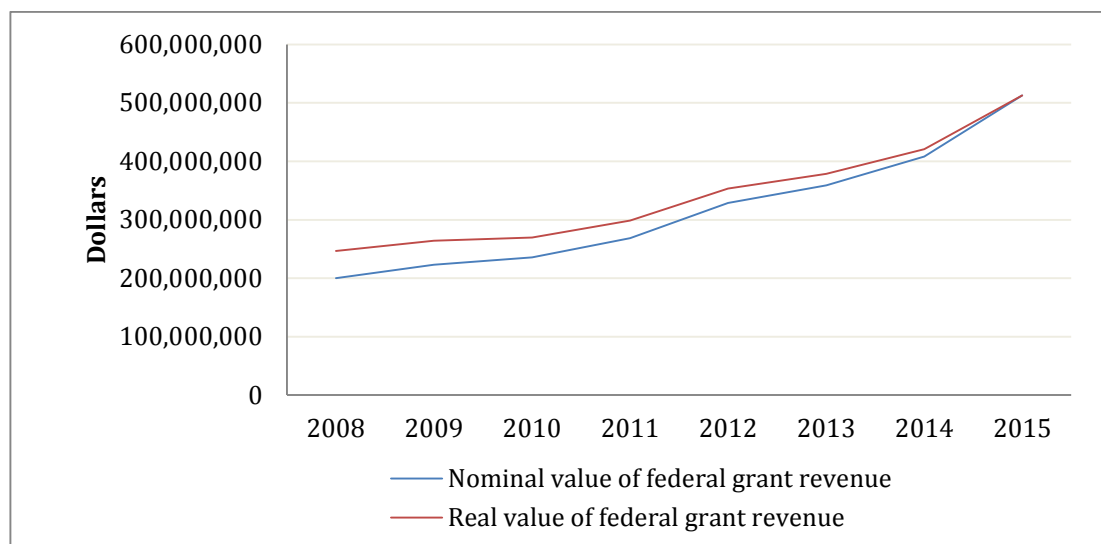
Source: UDS data, 2008-2015

**Appendix XII, Table 7: FQHC income (nominal and real value) received from Federal (BPHC) grant in Arizona between 2008 and 2015**

	Nominal value of federal (BPHC) grant revenue	Real value of federal (BPHC) grant revenue	Consumer Price Index
2008	36,439,069	44,849,506	368.713
2009	37,120,928	43,900,404	383.733
2010	36,782,392	42,074,223	396.737
2011	50,780,353	56,443,136	408.285
2012	46,656,019	50,155,516	422.151
2013	49,428,325	52,191,338	429.79
2014	60,666,966	62,502,166	440.49
2015	63,984,456	63,984,456	453.815
<b>Percentage change for 2008 -2015</b>	76%	43%	23%
<b>Percentage change for 2011-2015</b>	26%	13%	11%

Source: UDS data 2008-2015; Bureau of Labor of Statistics CPI 2008- 2015

**Appendix XII, Figure 12: FQHC income (nominal and real value) received from Federal (BPHC) grant in California between 2008 and 2015**



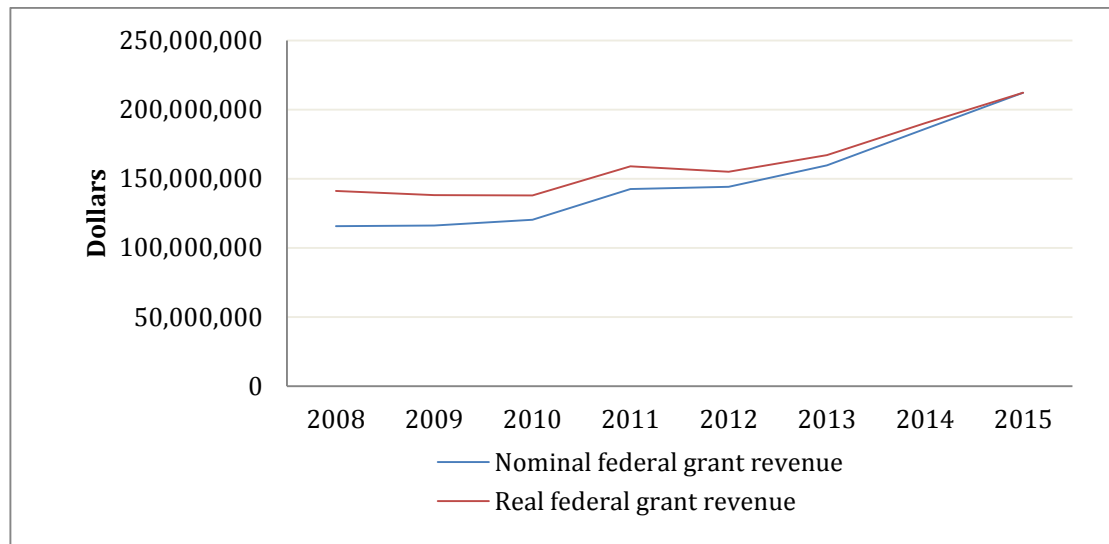
Source: UDS data, 2008-2015

**Appendix XII, Table 8: FQHC income (nominal and real value) received from Federal (BPHC) grant in California between 2008 and 2015**

	Nominal value of federal (BPHC) grant revenue	Real value of federal (BPHC) grant revenue	Consumer Price Index
2008	200,300,256	246,531,206	368.713
2009	223,218,669	263,985,584	383.733
2010	235,792,755	269,715,930	396.737
2011	268,621,768	298,577,189	408.285
2012	328,704,819	353,359,763	422.151
2013	358,822,892	378,880,873	429.79
2014	408,448,567	420,804,300	440.49
2015	512,697,314	512,697,314	453.815
<b>Percentage change from 2008-2015</b>	156%	108%	23%
<b>Percentage change from 2011-2015</b>	91%	72%	11%

Source: UDS data 2008-2015; Bureau of Labor of Statistics CPI 2008- 2015

**Appendix XII, Figure 13: FQHC income (nominal and real value) received from Federal (BPHC) grant in Texas between 2008 and 2015**



Source: UDS data, 2008-2015

**Appendix XII, Table 9: FQHC income (nominal and real value) received from Federal (BPHC) grant in Texas between 2008 and 2015**

	Nominal value of federal (BPHC) grant revenue	Real value of federal (BPHC) grant revenue	Consumer Price Index
2008	115,603,747	141,175,154	347.52
2009	116,181,568	138,205,722	356.761
2010	120,251,276	137,983,732	369.852
2011	142,527,667	158,899,867	380.664
2012	144,232,892	155,043,417	394.8
2013	159,721,518	167,110,939	405.625
2014	186,036,150	190,327,580	414.822
2015	212,344,975	212,344,975	424.391
<b>Percentage change for 2008-2015</b>	84%	50%	22%
<b>Percentage change for 2011-2015</b>	49%	34%	11%

Source: UDS data 2008-2015; Bureau of Labor of Statistics CPI 2008- 2015

Appendix XII shows FQHCs' income collected from Federal (BPHC) grant in the three states between 2008 and 2015. Line graphs were created for the three states to show the amount of revenue they received from BPHC grant in nominal and real value between 2008 and 2015. Tables were also created to

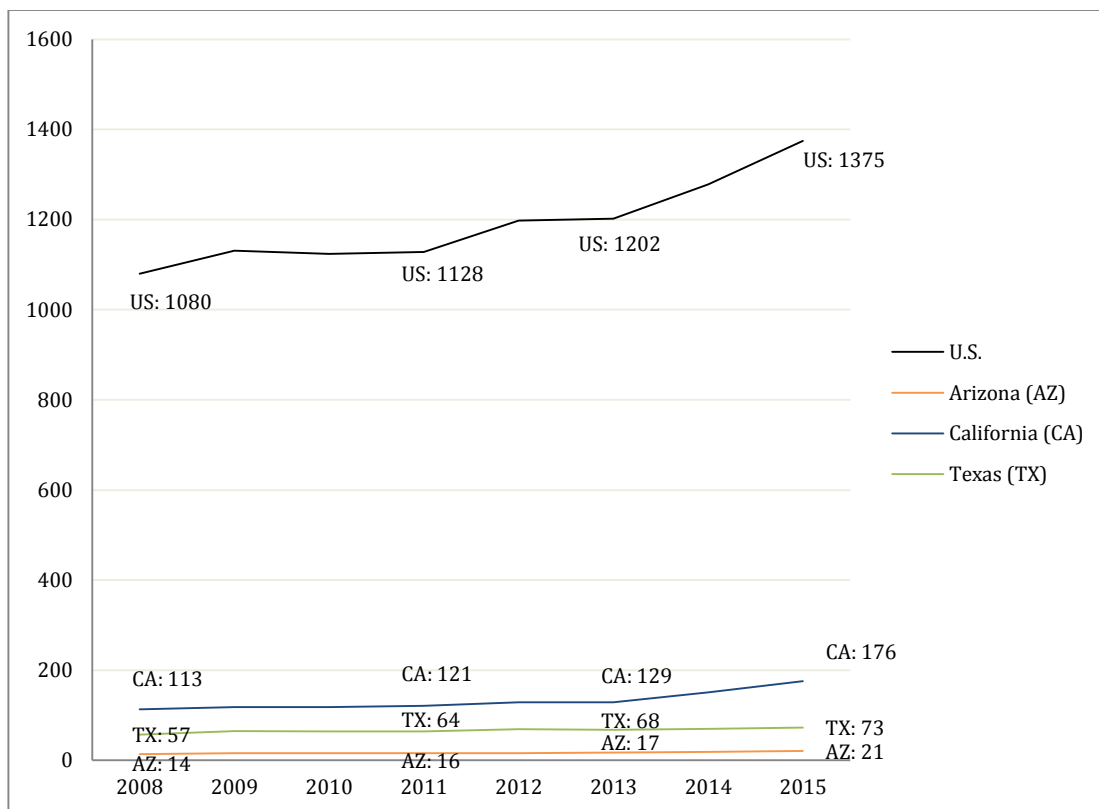


show the actual amount of revenue (in nominal and real value) received in each states from BPHC grant during the same time period.

The line graphs for the collected BPHC revenue (in nominal and real value) of FQHCs in Arizona show it increased between 2008 and 2015 (see Appendix XII, Figure 11). For the period 2011 to 2015, when enhanced federal funding was being distributed, and analysis of UDS data shows the real value of revenue collected from BPHC grant increased by 13 percent (See Appendix XII, Table 8). The line graph for California also shows revenue (in nominal and real value) from BPHC grants increased between 2008 and 2015 (see Appendix XII, Figure 12). An analysis of UDS data for California suggests the revenue from BPHC grants in real value increased by 72 percent between 2011 and 2015 (see Appendix XII, Table 9). The line graph for Texas shows BPHC grant (in nominal and real value) increased between 2008 and 2015 (see Appendix XII, Figure 13). An analysis of UDS data further reveals the revenue from BPHC grant increased by 34 percent between 2011 and 2015 (see Appendix XII, Table 10).

### Appendix XIII: Number of FQHCs in the U.S., AZ, CA, and TX between 2008 and 2015

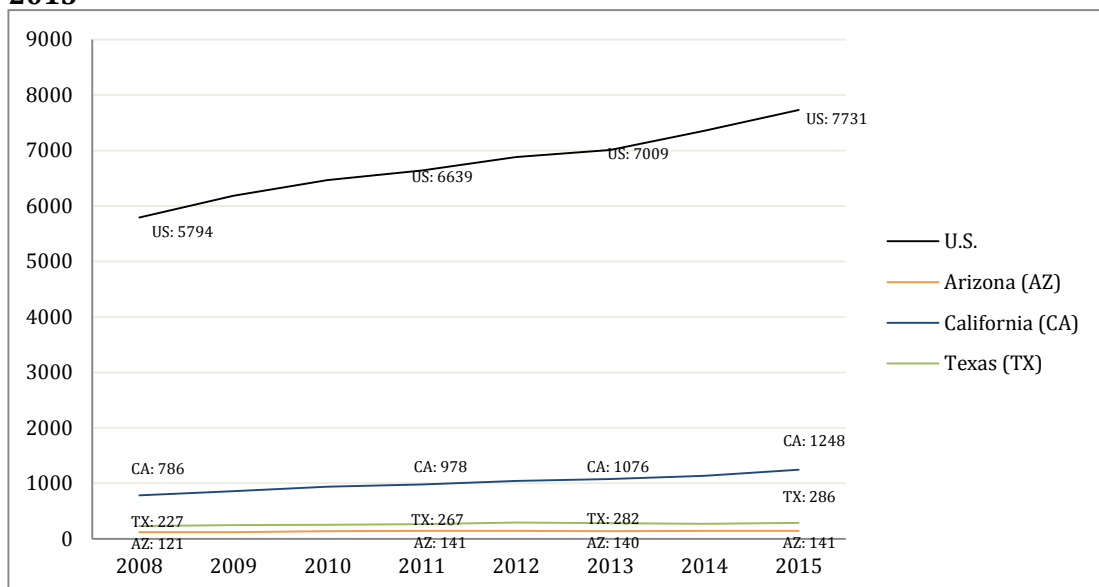
Appendix XIII, Figure 14: Number of operating FQHC between 2008 and 2015 in the U.S., AZ, CA, and TX



Source: UDS data, 2008-2015

## Appendix XIV: Annualized full-time equivalent (FTE) of selected FQHC clinical personnel between 2008 and 2015

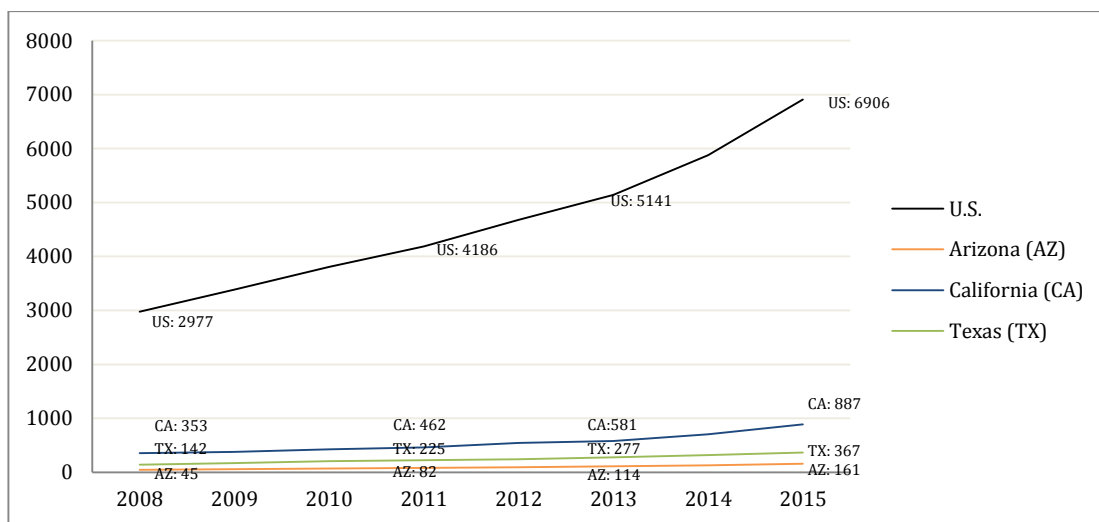
**Appendix XIV, Figure 15: Annual Full time equivalent (FTEs) of physicians  
(family physicians, general practitioners, internist) in U.S., AZ, CA, and TX, 2008-  
2015**



Source: UDS data, 2008-2015

Note: One full time equivalent = 1.0 and is described as a full-time staff member

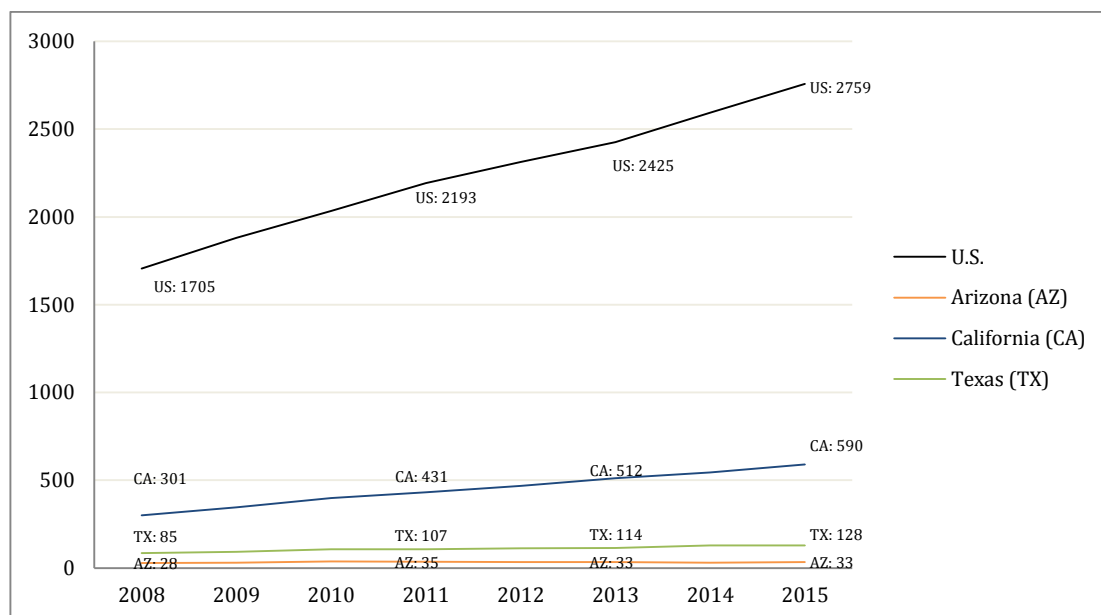
**Appendix XIV, Figure 16: Annual Full time equivalent (FTEs) of nurse  
practitioners (NPs) in U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

Note: One full time equivalent = 1.0 and is described as a full-time staff member

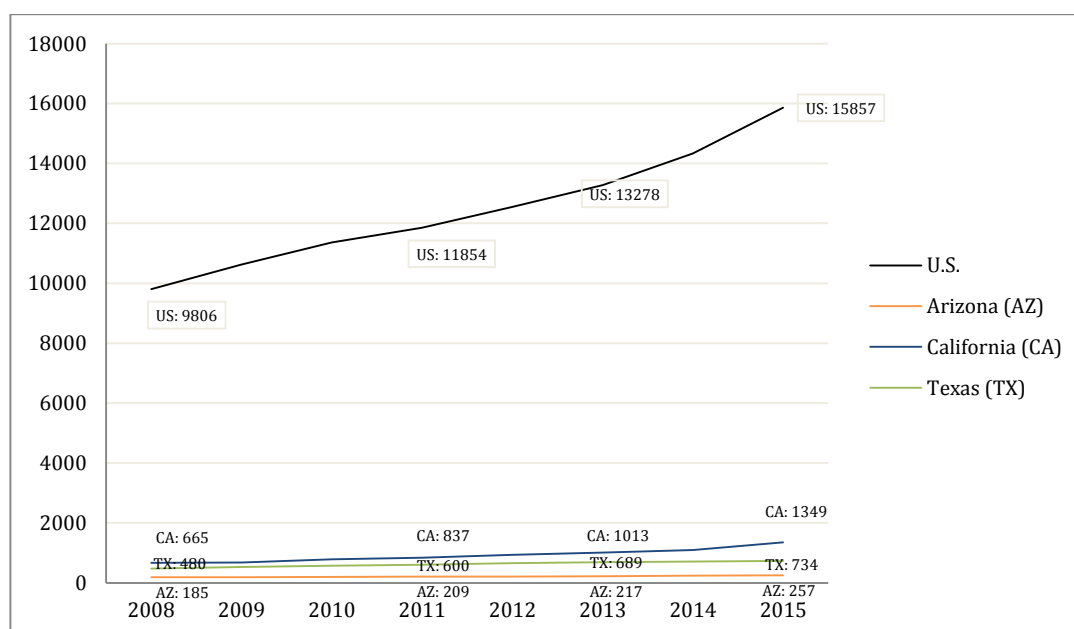
**Appendix XIV, Figure 17: Annual Full time equivalent (FTEs) of physician assistants (PAs) in U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

Note: One full time equivalent = 1.0 and is described as a full-time staff member

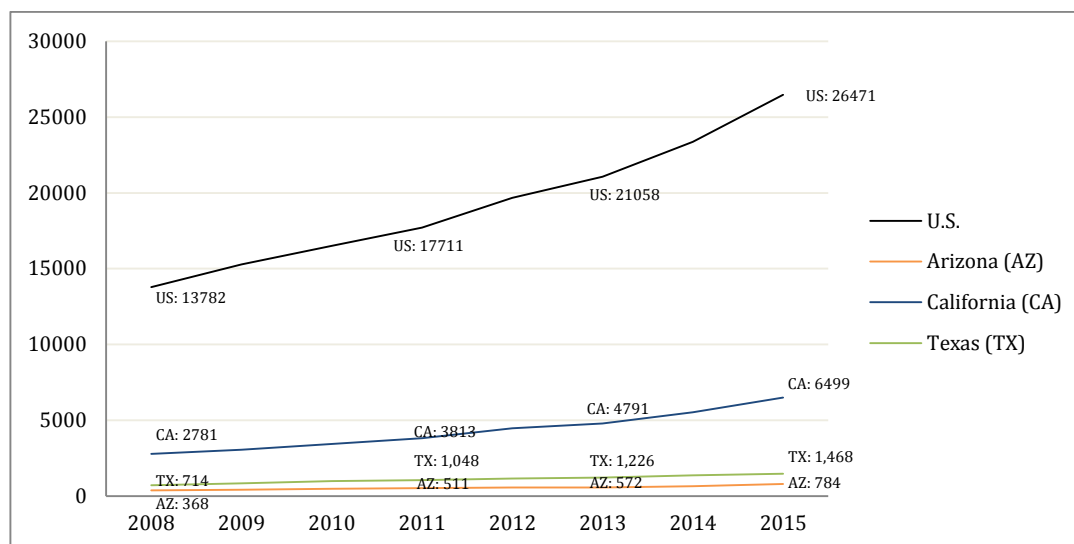
**Appendix XIV, Figure 18: Annual Full time equivalent (FTEs) of nurses in U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

Note: One full time equivalent = 1.0 and is described as a full-time staff member.

**Appendix XIV, Figure 19: Annual Full time equivalent (FTEs) of medical personnel in U.S., AZ, CA, and TX, 2008-2015**



Source: UDS data, 2008-2015

Note: One full time equivalent = 1.0 and is described as a full-time staff member

An analysis of UDS data shows between 2008 and 2015 the annual FTEs for physicians (family practitioners, general practitioners, internists) generally increased every year in the three states (see Appendix XIV, Figure 15). The FTEs of physicians in Arizona increased by 20 between 2008 and 2015. However, the FTEs of physicians remain the same from 2011 to 2015. The FTEs of Arizona physicians between 2011 and 2013 decreased by 1 unit and between 2013 and 2015 increased by 1 unit. FTEs of physicians in California increased by 462 between 2008 and 2015. Unlike Arizona, most of the increase in physician FTEs occurred from 2011 to 2015 as they increased by 270. The FTE of physicians in California increased by 98 between 2011 and 2013 and increased by 172 between 2013 and 2015. FTEs of physicians in Texas increased by 59 between 2008 and 2015. The FTE of physicians increased by 15 between 2011 and 2013 and by an additional 4 units between 2013 and 2015.

An analysis of UDS data for the three states shows the annual FTEs for nurse practitioners increased more than those of physician assistants between 2008 and 2015 (see Appendix XIV, Figure 16). The FTEs of nurse practitioners in Arizona increased by 116 between 2008 and 2015. Moreover, the FTE of nurse practitioners between 2011 and 2013 in the state increased by 32 units

and between 2013 and 2015 by 47 units. FTEs of nurse practitioners in California increased by 534 units between 2008 and 2015. An analysis of UDS data shows these clinicians in Californian FQHCs experienced an increase in their FTEs by 119 between 2011 and 2013 and by 308 between 2013 and 2015. FTEs of nurse practitioners in Texas also increased by 225 between 2008 and 2015. Between 2011 and 2013 the FTE of nurse practitioners increased by 52 and by an additional 90 between 2013 and 2015.

By contrast, the FTEs of physician assistants in the three states did not increase much during the same time periods (see Appendix XIV, Figure 17). Between 2008 and 2015, the FTEs of physician assistants in Arizona increased by 5. It then decreased by 2 between 2011 and 2013 and did not increase between 2013 and 2015. The FTEs of physician assistants increased more in Californian FQHCs with the FTEs of these personnel increasing by 289 between 2008 and 2015. The FTEs of physician assistant increased by 81 between 2011 and 2013 and by 78 between 2013 and 2015. FTEs of physician assistants in Texas FQHCs did not significantly increase between 2008 and 2015. The FTEs of these personnel increased by 43 between 2008 and 2015. FTEs of physician assistant increased by 7 between 2011 and 2013 and by 14 between 2013 and 2015.

An analysis of UDS data from the three states suggests the annual FTEs for nurses (see Appendix XIV, Figure 18) and other medical personnel (see Appendix XIV, Figure 19) increased between 2008 and 2015. Arizonan UDS data shows nurse FTEs increased by 72 between 2008 and 2015 and by 48 between 2011 and 2015. Medical personnel FTEs increased by 416 between 2008 and 2015 and by 273 between 2011 and 2015. Californian UDS data shows nurse FTEs increased by 684 between 2008 and 2015 and by 512 between 2011 and 2015. In comparison, medical personnel FTEs increased by 3,718 between 2008 and 2015 and by 2,686 between 2013 and 2015. Texan UDS data also shows FQHCs more greatly increased the FTEs for medical personnel than nurses. Nurse FTEs in Texas increased by 254 between 2008 and 2015 and by 134 between 2011 and 2015. Medical personnel FTEs in Texas increased by 754 between 2008 and 2015 and by 420 between 2011 and 2015.